

1. Biographical Data

1.A Marija D. Ilic

Professor of Electrical & Computer Engineering and Engineering & Public Policy
Carnegie Mellon University
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and

Honorary Chaired Professor for Control of Future Electricity Network Operations
Faculty of Technology, Policy and Management
Delft University of Technology
Delft, The Netherlands

1.B Place and Date of Birth

Zajecar, Yugoslavia: February 11, 1951

1.C Education

Degree	Discipline	University	Date
Dipl. Ing.	Electrical Engineering	Belgrade, Yugoslavia	1974
MEE	Electrical Engineering	Belgrade, Yugoslavia	1977
M.Sc.	Systems Science and Mathematics	Washington University St. Louis, MO	1978
DSc	Systems Science and Mathematics	Washington University St. Louis, MO	1980

1.D Former Positions

Date		Employer/Position
Sept. 1976	Aug. 1977	Institute for Automation and Telecommunications, Belgrade Principal Research Engineer
Aug. 1975	Dec. 1980	Washington University: Student Research Assistant
Jan. 1981	Aug. 1981	Washington University: Research Associate and Lecturer
Aug. 1981	July 1982	Drexel University: Assistant Professor
July 1982	June 1984	Cornell University: Assistant Professor
June 1984	Aug. 1984	General Electric R&D Center: Visiting Researcher
Aug. 1984	Aug. 1986	University of Illinois: Assistant Professor
Aug. 1986	Aug. 1989	University of Illinois: Associate Professor (with tenure)
Sept. 1987	Sept. 1989	MIT: Visiting Associate Professor
Sept. 1989	2003	MIT: Senior Research Scientist
Dec. 2003	Dec. 2005	MIT/Engineering Systems Division: Visiting Professor (unpaid)
Oct. 2002	present	Carnegie Mellon University, Professor (tenured), ECE/EPP

1.E Consulting Assignments

Sept. 1985	Sept. 1987	General Electric R&D Center
1988	1991	Decision Systems, International Inc.
Sept. 1989	Sept. 1991	New England Electric Service Co.
1989	1991	The Analytic Science Co.,
1995		The Tabors and Caramanis Associates. Co.
Jan. 1990	Dec. 1990	Power Technologies, Inc.
1990		The ENMASS Co.
1991		Martin Marietta Energy Systems, Inc.
1996		US Department of Energy
1994	present	Brattle/IRI, Inc., Senior Advisor
1997		Standard Poor's (Energy)
1997		Fulcrum International, Inc.
1999 (appointed)		National Science Foundation
2003		Charles River Research, Inc. (for FirstEnergy, Inc.)
Apr. 2003		Federal Energy Regulatory Commission (FERC)
2002—present		New Electricity Transmission Software Solutions (NETSS), Inc.

2. Principal Fields of Interest

Modeling and control of complex network systems; Nonlinear network and systems theory; Modeling and control of economic and technical interactions in dynamic systems under uncertainties; Critical infrastructures and their interdependencies; Computer methods and algorithms for simulating large-scale dynamic systems; Electric power systems modeling; Design of monitoring, control and pricing algorithms for electric power systems; Normal and emergency control of electric power systems.

3. Teaching and Education

Semester Offered	Course Title
ST 80 (Washington Univ.)	Numerical Analysis
FT 80 (Washington Univ.)	Probability and Engineering Statistics
ST 81 (Washington Univ.)	Advanced Power Systems Analysis
FT 81 (Drexel Univ.)	Linear Circuit Analysis
ST 82 (Drexel Univ.)	Linear Systems Theory
FT 82 (Cornell Univ.)	Electrical Engineering Laboratory
ST 83 (Cornell Univ.)	Power Systems Analysis I
FT 83 (Cornell Univ.)	Power Systems Analysis II
ST 84 (Cornell Univ.)	Linear Circuits & Systems
FT 84 (Univ of Illinois)	Computer Methods for Electric Networks
ST 85 (Univ of Illinois)	Advanced Modeling & Control of Electrical Machines
FT 85 (Univ of Illinois)	Power Electronics
ST 86 (Univ of Illinois)	Special Topics in Electric Power Systems
FT 86 (Univ of Illinois)	Solid State Control of Electric Drives
ST 86 (Univ of Illinois)	Special Topics in Electric Power Systems
ST 87 (Univ of Illinois)	Computer Methods in Electric Power Systems

FT 87 (M.I.T.)	Circuits and Electronics
ST 88 (M.I.T.)	Circuits and Electronics
FT 88 (M.I.T.)	Circuits and Electronics
ST 89 (M.I.T.)	Circuits and Electronics
ST 89 (M.I.T.)	Operation and Planning of Electric Power Systems
ST 90 (M.I.T.)	Dynamics and Control of Electrical Machines
FT 90 (M.I.T.)	Advanced Electric Power Systems I
ST 90 (M.I.T.)	Advanced Electric Power Systems II
ST 91 (M.I.T.)	Introduction to Electric Power Systems
FT 91 (M.I.T.)	Operation and Planning of Electric Power Systems
ST 92 (M.I.T.)	Dynamics and Control of Electrical Machines
FT 92 (M.I.T.)	Advanced Electric Power Systems I
ST 93 (M.I.T.)	Advanced Power Systems II
FT 93 (M.I.T.)	Operation and Planning of Electric Power Systems
ST 94 (M.I.T.)	Dynamics and Control of Electrical Machines
ST 94 (M.I.T.)	Feedback Systems
FT 94 (M.I.T.)	Advanced Electric Power Systems I
ST 95 (M.I.T.)	Advanced Electric Power Systems II
FT 95 (M.I.T.)	Operation and Planning of Electric Power Systems
ST 96 (M.I.T.)	Hierarchical Control of Power Systems: Its Value Under Changing Industry
FT 96 (M.I.T.)	Advanced Electric Power Systems I
ST 97 (M.I.T.)	Advanced Electric Power Systems II
FT 97 (M.I.T.)	Operation and Planning of Electric Power Systems
ST 98 (M.I.T.)	Circuits and Electronics
FT 99 (M.I.T.)	Advanced Electric Power Systems I:
ST 99 (M.I.T.)	Advanced Electric Power Systems II
FT 99 (M.I.T.)	Operation and Planning of Electric Power Systems
FT 00 (M.I.T.)	Advanced Electric Power Systems I
ST 01 (M.I.T.)	Advanced Electric Power Systems II
FT 01 (M.I.T.)	Operation and Planning of Electric Power Systems
ST 02 (M.I.T.)	Large Scale Dynamic Systems Revisited
ST 03 (Carnegie Mellon)	Modern Electrical Power Systems (mini)
ST 03 (Carnegie Mellon)	The Changing Electric Power Industry (mini)
FT 03 (Carnegie Mellon)	Special Topics in Systems & Control: Large-Scale Dynamic Systems Revisited
ST 04 (Carnegie Mellon)	Modern Electrical Power Systems (mini)
ST 04 (Carnegie Mellon)	The Changing Electric Power Industry (mini)
ST 04 (Carnegie Mellon)	EPP Projects
ST 04 (Carnegie Mellon)	EPP Project Management
FT 04 (Carnegie Mellon)	Complex Large-Scale Dynamic Systems
ST 05 (Carnegie Mellon)	Special Topics in Multi-Agent Systems & Control: Engineering & Economics of Electric Power Systems
FT 05 (Carnegie Mellon)	Electric Energy Processing: Fundamentals and Applications
FT 05 (Carnegie Mellon)	Special Topics in Multi-Agent Systems & Control: Electric Power Systems
ST 06 (Carnegie Mellon)	Engineering and Economics of the Changing Electric Power Industry

FT 06 (Carnegie Mellon)

ST 07 (Carnegie Mellon) Large-Scale Dynamic Systems; Engineering and Economics.

3.B Student Projects

(a) Undergraduate Projects

- Manghtal, S., "An Investigation of Three Different Ways of Modeling Loads in Load Flow Analysis," June 1990.
- Lee, J.H., "Transmission Line Modeling for Large-Scale Electric Power Systems," February 1994.
- Edoh, H., "Frequency and Power Generation Control in a Decentralized Electric Utility System," February 1995.
- Toh, Eugene, Homeostatic Control, May 2006
- Allison, Richard, Solar House, May 2006.

(b) Master's Students

- Schultz, D., "An Estimate of the Q-V Decoupling Error," September 1984 (Cornell University).
- Dobraca, F., "A Novel Approach to the System-Wide Protection of Large Power Systems," September 1986 (University of Illinois).
- Fong, M., "Instantaneous Torque Control of Switched Reluctance Motors Using Floquet Theory," September 1986 (University of Illinois).
- Crow, M.L., "Transient Stability Simulation by Waveform Relaxation Techniques," September 1986 (University of Illinois).
- Shanahan, P., "Approximate Methods for Voltage Monitoring and Control in Electric Power Systems," December 1987 (University of Illinois).
- Rayas, A., "Numerical Issues in Studying a Linear Dynamical Model of a Realistic Power Electronic Circuit," May 1988 (University of Illinois).
- Stobart, W.J., "Using Reactive Power Reserves for Hierarchical Control of Electric Power Systems," June 1990 (Mechanical Engineering Department).
- Kiryaman, T., "Nonlinear Analysis and Control of Switched-Mode DC to DC Converters," February 1991 (Nuclear Engineering Department).
- Millis, K., "Small Signal Stability of Power Converters Connected in Parallel," June 1991.
- Lim, K.K., "Coordination and Control Logic Design for Slow Voltage Control Devices in Electric Power Systems," September 1991 (Mechanical Engineering Department).
- Tolikas, M., "The Application of Homotopy Methods in the Analysis of Electric Power Systems," June 1992.
- Nishimura, F., "Benefit Optimization of Electric Energy Exchange in a Deregulated Multi-Utility Environment," June 1992.
- Jaber, Z. C., "Computer Applications in Power Systems," September 1992 (American University of Beirut, Lebanon, co-supervised with M. Yehia).
- Lacalle-Melero, J. R., "Short Term Stability Analysis of Electrical Energy Markets Under the Real Time Pricing," February 1993.
- Lasota, C., "Reactivity Estimation and Validation for the Control of Reactor Neutronic Power," June 1993 (Nuclear Engineering Department, co-supervised with J. Bernard)
- Chapman, J.W., "Feedback Linearizing Generator Excitation Control for Enhanced Power System Stability," September 1993.
- Allen, E.H., "Effects of Torsional Dynamics on Nonlinear Generator Control," February 1995.
- LaWhite, N., "Vector Calculus of Periodic Non-Sinusoidal Signals for Decomposition of Power Components in Single and Multiphase Circuits," June 1995.
- Zobian, A., "A Framework for Cost-based Pricing of Transmission and Ancillary Services in

- Competitive Electric Power Markets," June 1996.
- Yu, C. N., "Real Power and Frequency Control of Large Electric Power Systems under Open Access," June 1996 (Mechanical Engineering Department).
- Cordero, R., "Estimation of Transmission Losses in a Changing Electric Power Industry," June 1996.
- Lecinq, B., "Peak-load Pricing for Transmission in a Deregulated Electric Utility Industry," June 1996 (Civil Engineering Department).
- Bambenek, J., "Long term economically efficient transmission systems in a deregulated electric power industry," June 1996 (Nuclear Engineering Department, co-supervised with R. Lester).
- Kuan, J., "Optimal Power Flow with Price-Elastic Demand," September 1996.
- Yoon, T. Y., "Enhancements of Electric Power Systems Operation Using FACTS Devices," February 1997.
- Lerner, P., "On the Value of Transmission Systems under Open Access: Incentives for Investment," June 1997.
- Castillo, J., "How to Make Electric Power Markets Work: The Case of Central America," June 1997.
- Macan, E., "Peak-Load Pricing for the IEEE Reliability Test System," June 1997.
- Ziad, Y. "Deregulation of the Electric Power Industry: The Impact of Transmission on Market Imperfections," February 1998 (Civil Engineering Department).
- Skantze, P., "Closed-loop Market Dynamics in a Deregulated Electric Power Industry," February 1998.
- Shalafi, A., "Available Transmission Capability in Deregulated Electric Power Industry: A Critical Assessment," June 1998.
- Visudhiphan, P., "A Dynamic Model of the Electricity Generation Market," September 1998.
- Leotard, J.P., "Transmission Pricing and Incentives for Investments under Uncertainty in the Deregulated Industry", TPP (Civil Engineering), February 1999.
- Prada, J., "Valuation of Operating Reserve in Power Systems", TPP (EECS), June 1999.
- Chalermkraivuth, Charles, "Distributed Generation: The Strategies and Decision Criteria of Market Participants", TPP (ESD), February 2001.
- Raikar, Santosh, "Interruptible Physical Transmission Contracts for Congestion Management," TPP (ESD) July 2001.
- Tsuchuda, Bruce, "Design of an Information Entity-The InfoCo-for the Electric Power Industry Under Restructuring", TPP (ESD) and EECS, June 2001.
- Collison, Keneth, TPP (ESD), "A Practical Approach to Optimal Pricing and Implementation of Inter-regional Transactions in the Deregulated US Electricity Market", TPP (ESD), June 2001.
- Gozum, Ozge Nadia, "Decision Tools for Transmission Service and Pricing: A Dynamic Programming Approach", EECS, June 2001 (Gullemin Prize Thesis Award for best EECS thesis).
- Wagner, Michael, "Hedging Optimization Algorithms for Deregulated Electricity Markets", EECS June 2001.
- Watz, Jill, "The Role of Government in Facilitating Customer Choice in the Electric Power Industry Under Restructuring", TPP (ESD), February 2002.
- Sivakumar, Ashok, "Algorithms for Transmission Congestion Control Under Uncertainties", MIT, EECS, June 2002.

Prica, Marija, "Transmission Planning in the Changing Electric Power Industry", co-advising with Prof Popovic, D., University of Novi Sad, June 2006.

Patnik, Michael, "Transmission Provision and Pricing for the Future Electric Power Industry", CMU ECE, 2005.

Thatte, Anupam, MS Course Option student, Dec. 2005

Patnik, Michael, Transmission Provision and Pricing, ASAP.

Otegbade, Olubumni, Professional M.S. Program in ECE.

Zhang, Yi, "Smart Relays", January 2009.

Liu, Juhua, "Mid-term Instabilities in Electric Power Systems", ECE, CMU, June 2007 (co-advised with Bruce Krogh).

(c) Ph.D. Students

Christensen, J., "Secondary Voltage Control Using Partial Information Structures," December 1987 (University of Illinois).

Taylor, D., "Control of Nonlinear Systems with Application to Electrical Machines and Robotic Manipulators," December 1987 (University of Illinois).

Crow, M.L., "Systems of Differential/Algebraic Equations with Applications to Power System Transient Stability Analysis," September 1989 (University of Illinois).

Fong, M., "Modeling and Control of Slow Voltage Dynamics in Electric Power Systems," September 1989 (University of Illinois).

Doerry, N.H., "Advanced Numerical Methods for Simulating Nonlinear Multirate Lumped Parameter Models," June 1991 (Ocean Engineering Department, co-supervised with J. Kirtley).

Amy, J., "Composite System Stability Methods Applied to Advanced Shipboard Electric Power Systems," June 1992 (Ocean Engineering Department, co-supervised with J. Kirtley).

Liu, X.S., "Structural Modeling And Hierarchical Control of Large-Scale Electric Power Systems," June 1994 (Mechanical Engineering Department).

Eidson, B.D., "Estimation and Hierarchical Control of Market-driven Electric Power Systems," September 1995.

Zobian, A., "A Framework for Pricing Transmission and Ancillary Services in Competitive Electric Power Markets," June 1996.

Chapman, J., "Power System Control for Large-Signal Stability: Security, Robustness and Transient Energy," June 1996.

Cardell, J., "Integrating Small Scale Distributed Generation into a Deregulated Market: Control Strategies and Price Feedback," September 1997 (so-supervised with R. Tabors, best thesis award) (TMP).

Allen, E. H., "Stochastic Unit Commitment for a Deregulated Electric Power Industry," June 1998.

Yu, C.N., "Direct Power Flow Control and Its Pricing in a Deregulated Electric Power Industry," August 1999 (Mechanical Engineering Department).

Millis, K., "Distributed Measures of Solution Existence and Its Optimality in Stationary Electric Power Systems: Scattering Approach" August 1999.

Yoon, Y. T., "Electric Power Network Economics: Designing Principles for a For-Profit Independent Transmission Company and Underlying Architectures for Reliability", June 2001, EECS.

Skantze, P., "A Fundamental Approach to Valuation, Hedging and Speculation in Deregulated Electricity Markets", June 2001, EECS.

Arce, Rafael Jose, "Transmission Reliability Assessment in a Competitive Electric Energy Industry", Doctor en Ingenieria Electrica, Universidad Nacional de San Juan, Argentina, February 2001 (coadvisor with F.F. Garces)

Visudhiphan, Poonsaeng, "An Agent-Based Approach to Modeling Electricity Spot Markets", May 2003, EECS.

Botterud, Audun, "Modeling and Analysis of Investment Dynamics in the Changing Electric Power Industry", NTNU Trodheim (co-advising), 2004.

Black, Jason, "Technical and Regulatory Methods for Inducing Price Responsiveness in regulated Electricity Markets," 2005 (ESD/TMP).

Patino-Echeverri, Dalia, CMU EPP, "Risk Management in the Electricity Industry: Environmental Markets and FTR Markets", 2005 (thesis committee).

Minoia, Anna, Dipartimento di Elettrotecnica ed Elettronica, Politecnico di Bari, "Reference Transmission Network Concept in an Oligopolistic Electricity Market: a Game Theory Approach," 2005. Co-Advisor: Michele Trovato.

Elizondo, Marcelo, "Fast Control of Electric Power Systems and Market Design for their Valuation." (co-advise with Argentina Univ. Prof. Francisco Garces), 2006.

Wu, Zhyiong (Richard), Forward Electricity Markets, (main advisor), CMU/EPP, august 2007.

Xie, Le, Info for Multi-Layered Architectures, June 2009.

Prica, Marija, System Protection, June 2009.

Zhang, Yi (co-advised with Ozan Tonguz), Smart Relays, June 2009.

Blood, Ellery (co-advised with Bruce Krogh), State Estimation for Power Systems, December 2009.

Liu, Juhua (co-advised with Bruce Krogh), Advanced Control of Power Systems, December 2009

Kurlinski Ryan, Risk Modeling and Valuation in the Changing Electric Power Industry, PhD advisor, EPP, (with Lester Lave), 2010.

Nazari, Masoud, Distributed Electric Power Systems of the Future, PhD advisor, EPP, CMU, 2010.

Houwing, Michiel, Carnegie Mellon EPP Visiting Student 2007-2008, Delft University of Technology Ph.D. Candidate, the Netherlands.

Doctoral Theses, Reader

Brown, R., "Optimal Speed Control of Stepper Motors," December 1986 (University of Illinois).

Behera, A., "New Techniques for Real Time Stability Studies in the Large Scale Power Systems," February 1988 (University of Illinois).

Sanders, S., "Nonlinear Control of Switching Power Converters," February 1989.

Chakravarthy, S., "Chaotic Oscillations in Electrical Power Systems," July 1995 (University of Technology Perth, Western Australia).

Koncar, I., "Generation Dispatch with Independent Transmission Projects," (McGill University), 1998.

Kristiansen, Tarjei, PhD Thesis Committee, "Risk Management in Electricity Markets Emphasizing Congestion" (The Norwegian University of Science and Technology), May 2004.

Prabhu, Nagesh, "Analysis of SubSynchronous Resonance with Voltage Source Converter based FACTS and HVDC," (Indian Institute of Science, Bangalore, INDIA), February 2005.

Xie, Zhijun, "Design of China Electric Power Wholesale Market" (Boston University), December 1999.

Han, Zhi, "Verification of Hybrid Systems Using Decomposition and Model Reduction", CMU/ECE, 2005 (thesis committee).

Patino-Echeverri, Dalia. "Valuing Risk Reduction: Three Applications in the Electricity Industry," December 2005.

Zhang, Haotian, "Field Estimation in Wireless Sensor Networks Using reduced-Order Physical Models", CMU/ECE (thesis committee), 2006.

Liao, Huaiwei, "Measuring Cascading Failure Risk in Electric Power Grids," May 2007. PhD ECE. Zavala, Victor, Chem Eng, CMU.

Katz Inna, (co-advising with Adrian Ionovici, Israel)

Black, Jason, Doctor of Philosophy in Engineering Systems, MIT June 2005 "Integrating Demand into the U.S. Electric Power System: Technical, Economic, and Regulatory Frameworks for Responsive Load," Main PhD Advisor.

Traft, David, MIT 2004.

Zeriffi, Hisham, CMU/EPP, 2004.

Juan Arieta-Camacho, Chemical Engineering, CMU, June 2007.

Elizondo, Marcelo, Co-advising, Argentina, May 2007.

Pajic, Slobodan, Ph.D. Thesis Committee, ECE, Worcester Polytechnic Institute, PhD, April 2007.

Tapia-Ahumada, Karen, MIT ESD PhD, 2010.

Zavala, Victor, Carnegie Mellon, Chemical Engineering, April 2008

Huang, Rui, Carnegie Mellon University, Chemical Engineering Department, Ph.D., 2011.

3.C Educational Contributions

Developed graduate level curriculum for the electric power systems at M.I.T., EECS Department.

Developed three permanent courses in EECS, M.I.T. in the area of electric power systems.

Significant contributions to theses supervision in the area of electric power systems at M.I.T. over the past 15 years.

Served as an IEEE Distinguished Lecturer.

Taught a new subject under course #18-879 at Carnegie Mellon University, "Special Topics in Systems and Control: Large-Scale Dynamic Systems Revisited. This course is to become a permanent ECE course, #18-777 in the Fall of 2004.

Co-authored paper entitled, "Introducing Electric Power into a Multidisciplinary Curriculum for Network Industries," to be published in the IEEE Tran. On Power Systems, Special Issue on Education, May 2004. The relevance of this paper is that it defines a vision for the CMU INI/Master Program in this subject area. Preparations are underway to start this Program in the Fall of 2005.

Committee work: Undergraduate Advising Committee (ECE), Graduate Committee (EPP), Ad Hoc Promotion Committee, at Carnegie Mellon University (2003-2004).

Conference Co-Organizer for the First Carnegie Mellon Conference on "Electricity Transmission in Deregulated Markets: Challenges, Opportunities, and Necessary R&D Agenda," December 15-16, 2004; Co-Organizer for the Second Carnegie Mellon Conference in Electric Power Systems: "Monitoring, Sensing, Software and Its Valuation for the Changing Electric Power Industry," January 11-12, 2006; and Co-Organizer for the Third Annual Carnegie Mellon Conference on the Electricity Industry: "Ensuring that the Industry Has the Physical and Human Resources Needed for the Next 30 Years," March 13-14, 2007.

4. Publications

4.A Books

1. Ilic, M.D. and S.X. Liu, *Hierarchical Power Systems Control: Its Value in a Changing Electric Power Industry*, Springer-Verlag London Limited Series, Advances in Industrial Control, 1996.
2. Ilic, M., F. D. Galiana and L. Fink (eds.) *Electric Power Systems Restructuring: Engineering and Economics*, Kluwer Academic Publishers, 1998.
3. Allen, E.H., Ilic, M., *Price-Based Commitment Decisions in the Electricity Market*, Springer-Verlag London Series on Advances in Industrial Control, November 1998.
4. Ilic, M.D. and J. Zaborszky, *Dynamics and Control of Large Electric Power Systems*, Wiley Interscience, May 2000 (900 pages).
5. Skantze, P. and Ilic, M., *Valuation, Hedging and Speculation in Competitive Electricity Markets: A Fundamental Approach*, Kluwer Academic Publishers, 2001.
6. Ilic, M. et al, *Engineering Electricity Services of the Future*, Kluwer Academic Publishers (Springer Verlag), August 2007.

4.B Archival Papers Critically Reviewed Before Publication

Ilic, M., "Multicriteria Approach to Optimal Operation of Power Systems," *Automatica*, May-June 1977 (Yugoslavian journal).

Ilic, M.D. and M. Calovic, "Multicriteria Approach to Optimal Operation of Power Systems," *Electric Power Systems Research*, 2, 145-153, 1979.

Ilic-Spong, M.D. and J. Zaborszky, "A Different Approach to Load Flow," *IEEE Transactions on Power Apparatus and Systems PAS-101*, 168-179, January 1982.

Zaborszky, J., M. Ilic-Spong, and K.W. Whang, "Homogeneous, Nonlinear Load-Flow Algorithms for HV-AC and Compound HV-AC-DC Systems," *International Journal on Electrical Power and Energy Systems* 4, 233-244, October 1982.

Ilic-Spong, M., Discussion of the paper, "A New Method for Computerized Solution of Power Flow Equations," by J.W. Bandler and M.A. El-Kady, *IEEE Transactions on Power Apparatus and Systems PAS-101*, 1-9, 1982.

Ilic-Spong, M., N. Katz, and J. Zaborszky, "Block Diagonal Dominance for Systems of Nonlinear Equations with Application to Load Flow Calculations in Power Systems," *International Journal on Mathematical Modeling* 5, 275-297, December 1984.

Ilic-Spong, M., M. Spong, and R. Fischl, "The No-gain Theorem and Localized Response for the Decoupled P--O Network with Active Power Losses Included," *IEEE Transactions on Circuits and Systems CAS-32*, 170-177, February 1985.

Thorp, J.S., M. Ilic-Spong, and M. Varghese, "An Optimal Secondary Voltage-Var Control Technique," IFAC Automatica 22 217-221, 1986.

Ilic-Spong, M., J. Thorp and M. Spong, "Localized Response Performance of the Decoupled Q-V Network," IEEE Transactions on Circuits and Systems CAS-33, 316-322, March 1986.

Thorp, J., M. Ilic-Spong, and D. Schulz, "Reactive Power - Voltage Problem: Conditions for the Existence of Solution and Localized Disturbance Propagation," International Journal on Electrical Power and Energy Systems 8, 66-74, April 1986.

Ilic-Spong, M. and A. Phadke, "Redistribution of Reactive Power Flow in Contingency Studies," IEEE Transactions on Power Apparatus and Systems PWRS-1, 266-275, August 1986.

Zaborszky, J., M. Ilic-Spong, G. Huang, and F. Dobraca, "Computer Control of the Large Power System During Faults for Inherently Adaptive Selective Protection," IEEE Transactions on Power Apparatus and Systems PWRS-2, 494-504, 1987.

Ilic-Spong, M., J.S. Thorp, T.J. Miller, and S. Mac Minn, "Instantaneous Torque Control of Electric Motor Drives," IEEE Transactions on Power Electronics PE-2, 55-61, January 1987.

Ilic-Spong, M., R. Marino, S.M. Peresada, and D.G. Taylor, "Feedback Linearizing Control of Switched Reluctance Motors," IEEE Transactions on Automatic Control AC-32, 371-379, May 1987.

Ilic, M. and J. Zaborszky, "Fundamentals of Reactive Power Modeling and Control," IEEE Transactions on Power Systems, special publication 87EH0262-6-PWR, 61-114, July 1987.

Medanic, J., M. Ilic-Spong, and J. Christensen, "Discrete Models of Slow Voltage Dynamics for Under Load Tap Changing Transformer Coordination," IEEE Transactions on Power Apparatus and Systems PWRS-2 873-882, November 1987.

Ilic-Spong, M., M.L. Crow and M.A. Pai, "Transient Stability Simulation by Waveform Relaxation Methods," IEEE Transactions on Power Apparatus and Systems, PWRS-2, 943-952, November 1987.

Ilic-Spong, M., J. Christensen, and K.L. Eichorn, "Secondary Voltage Control Using Pilot Point Information," IEEE Transactions on Power Systems 3, 660-668, May 1988.

Sira-Ramirez, H. and M. Ilic, "A Geometric Approach to the Feedback Control of Switch Mode DC-to-DC Power Supplies," IEEE Transactions on Circuits and Systems 35, 1291-1298, October 1988.

Ilic, M., "Energy Systems Control," IEEE Control Systems Magazine, Special Issue on Energy Systems Control, 3-4, January 1989.

Ilic, M., "New Approaches to Voltage Monitoring and Control," IEEE Control Systems Magazine, Special Issue on Energy Systems Control, 5-11, January 1989.

Sira-Ramirez, H. and M. Ilic, "Exact Linearization in Switched-Mode DC to DC Power Converters," *International Journal of Control* 50, 511-524, August 1989.

Crow, M.L. and M. Ilic, "The Parallel Implementation of the Waveform Relaxation Method for Transient Stability Simulations," *IEEE Transactions on Power Systems* 5, 922-932, 1990.

Ilic, M. and W. Stobart, "Development of a Smart Algorithm for Voltage Monitoring and Control," *IEEE Transactions on Power Systems PWRS-5*, 1183-1193, November 1990.

Ilic, M. and A. Stankovic, "Voltage Problems on Transmission Networks Subject to Unusual Power Flow Patterns," *IEEE Transactions on Power Apparatus and Systems* 6, 339-348, February 1991.

Stankovic, A., M. Ilic and D. Maratukulam, "Recent Results in Secondary Voltage Control of Power Systems," *IEEE Transactions on Power Systems* 6, 94-101, February 1991.

Tylavsky, D.J. and A. Bose, "Parallel Processing in Power Systems," (M.D. Ilic, co-contributor), *IEEE Transactions on Power Systems*, 7, 629-638, 1991.

Ilic, M.D., J.R. Lacalle-Melero, F. Nishimura, W. Schenler, D. Shirmohammadi, A. Crough, and A. Catelli, "Short-Term Economic Energy Management in a Competitive Utility Environment," *IEEE Transactions on Power Systems*, 8, 198-206, February 1993.

Mak, F.K. and M.D. Ilic, "Classification of Voltage Problems in Electric Power Systems," *International Journal on Electrical Power and Energy Systems*, 15, 377-385, April 1993.

Chapman, J.W., M.D. Ilic, C.A. King, et al., "Stabilizing a Multimachine Power System via Decentralized Feedback Linearizing Excitation Control," *IEEE Transactions on Power Systems*, PWRS-8, 830-839, August 1993.

Nishimura, F., R.D. Tabors, M.D. Ilic, and J.R. Lacalle-Melero, "Benefit Optimization of Centralized and Decentralized Power Systems in a Multi-Utility Environment," *IEEE Transactions on Power Systems* PWRS-8, 830-839, August 1993.

Chedid, R., N. LaWhite and M.D. Ilic, "A Comparative Analysis of Dynamic Models for Performance Calculation of Grid-Connected Wind Turbine Generators," *Wind Engineering*, 17, 168-182, 1993.

Chedid, R., N. LaWhite and M.D. Ilic, "Simulating Dynamic Interactions of Grid-Linked Wind Turbines," *IEEE Computer Applications in Power*, 1994.

King, C.A., J.W. Chapman, and M.D. Ilic, "Feedback Linearizing Excitation Control on a Full-Scale Power System Model," *IEEE Transactions on Power Systems*, 9, 1102-1111, 1994.

Yehia, M., R. Chedid, M. Ilic, A. Zebian, R. Tabors and J. Lacalle-Mellero, "Global Planning Methodology for Uncertain Environments: Application to the Lebanese Power System," *IEEE Transactions on Power Systems*, PWRS-10, 332-338, February 1995.

Ilic, M.D. and X.S. Liu, "A Modeling and Control Framework for Operating Large-Scale Electric Power Systems Under Present and Newly Evolving Competitive Industry Structures," Journal on Mathematical Problems in Engineering, 1, 317-340, October 1995. (invited)

Yehia, M., R. Chedid, Z. Jaber, M.D. Ilic and A. Zobian, "An Improved Dynamically Allocated Data Structure for Power System Problems," The International Journal of Modeling and Simulation, 61-65, 1997.

Ilic, M.D., Xiaojun Liu, G. Leung, M. Athans, C. Vialas, and P. Provot. "Improved Secondary and New Tertiary Voltage Control," IEEE Transactions on Power Systems, 10, 1851-1862, November 1995.

Ilic, M.D., "Fundamental Engineering Problems and Opportunities in Operating Power Transmission Grids of the Future," International Journal on Electrical Power Energy Systems, 17, 207-214, 1995. (Special Issue)

Ilic, M.D., Editorial in *ibid*, 1-2.

Allen, E.H., J.W. Chapman and M.D. Ilic, "Effects of Torsional Dynamics on Nonlinear Generator Control," IEEE Transactions on Control Systems Technology, 4, 125-140, March 1996.

Ilic, M.D., F.C. Graves, L.H. Fink and A. DiCaprio, "A Framework for Operations in Competitive Open Access Environment," The Electricity Journal, Special Issue on Restructuring of the Utility Industry, 9 61-69, April 1996.

Zobian, A. and M.D. Ilic, "A Steady-State Voltage Monitoring and Control Algorithm Using Localized Least Squares Minimization of Load Voltage Deviation," IEEE Transactions on Power Systems, 11, 929-938, May 1996.

Ilic, M., "A Summer of Shortage," Public Utilities Fortnightly, July 1996.

Ilic, M. and L. Hyman, "Getting it Right the First Time: The Value of Transmission and High Technologies," The Electricity Journal, 9, 8-17, November 1996.

Ilic, M., S.X. Liu, B.D. Eidson, C. Vialas, and M. Athans, "A New Structure-Based Approach to the Modeling and Control of Electric Power Systems in Response to Slow Reactive Power/Voltage Load Variations," IFAC Automatica, 33, 515-531, March 1997.

LaWhite, N. and M.D. Ilic, "Vector Space Decomposition of Reactive Power for Periodic Nonsinusoidal Signals," IEEE Transactions on Circuits and Systems, Part I, Fundamental Theory and Applications, 44, 338-346, April 1997.

Zobian, A. and M. D. Ilic, "Unbundling of Transmission and Ancillary Services Part I: Technical Issues," IEEE Transactions on Power Systems, 12, 539-548, May 1997.

Zobian, A. and M.D. Ilic, "Unbundling of Transmission and Ancillary Services Part II: Cost-Based Pricing Framework," IEEE Transactions on Power Systems, 12, 549-558, May 1997.

Ilic, M.D., Y.T. Yoon and A. Zobian, "Available Transmission Capacity and Its Value Under Open Access," IEEE Transactions on Power Systems, 12, 636-645, May 1997.

Fink, L., M. Ilic and F.D. Galiana, "Transmission Access Rights and Tariffs," Electric Power Systems Research, 43, 197-206, June 1997.

Hyman, L. and M.D. Ilic, "Will Consumers Benefit From New Power Era?" Forum on Applied Research and Policy, 12, 59-68, June 1997.

Ilic, M., L. Hyman, E.H. Allen and Z. Younes, "Transmission Scarcity: Who Pays?" The Electricity Journal, 10, 38-49, July 1997.

Hyman, L. and M.D. Ilic, "Scarce Resource, Real Business or Threat to Profitability?" Public Utilities Fortnightly, October 1997.

Ilic, M., Y.T. Yoon, A. Zobian, and M.E. Paravalos, "Toward Regional Transmission Provision and its Pricing in New England," Utilities Policy, 6, 245-256, 1997.

Ilic, M., F.D. Galiana, L.H. Fink, A. Bose, P. Mallet, and H. Othman, "Transmission Capacity in Power Networks," Electrical Power and Energy Systems, 20, 99-110, 1998.

Galiana, F.D. and M.D. Ilic, "A Mathematical Framework for the Analysis and Management of Power Transactions Under Open Access," IEEE Transactions on Power Systems, PWRS-13, 681-687, May 1998.

Younes, Z. and M. Ilic, "Generation Strategies for Gaming Transmission Constraints: Will the Deregulated Electric Power Market Be an Oligopoly?" Journal of Decision and Support Systems, (Special Issue on Restructuring of the Electric Power Industry), 1999.

Ilic, M., "Benefits of Deregulation: Who Pays for Reliability?" Energia (invited), September 1998.

Allen, E., M. Ilic and Z. Younes, "Providing for Transmission in Times of Scarcity: An ISO Cannot Do it All," Electrical Power and Energy Systems, pp. 147-163, 1999 (Special Issue on Deregulation).

Yu, CN, Yoon, T.Y., Ilic, M., Catelli, A., "On-line Voltage Regulation: The Case of New England", PE-082-PWRS-0-02-1999.

Yu, CN, Leotard, J-P, Ilic, M., "Dynamic Transmission Provision in Competitive Electric Power Industry", Discrete Event Dynamic Systems: Theory and Applications, 9, 351-388, Kluwer Academic Publishers, Boston, MA.

Prada, J.F., Ilic, M.D., "Pricing Reliability: A Probabilistic Approach", Energetica, vol. 23, pp. 75-89, July 2000, ISSN 0120-9833, Columbia.

Ilic, M., Skantze, P., "Electric Power Systems Operation by Decision and Control: The Case Revisited", IEEE Control Systems Magazine, August 2000, pp. 25-39.

Ilic, M., "Eulogy for RTOs—Interregional is Better", Public Utilities Fortnightly, Oct 15, 2000.

Allen, E.H. and M. Ilic, "Interaction of Transmission Network and Load Phasor Dynamics in Electric Power Systems," IEEE Transactions on Circuits and Systems I: Fundamental Theory and Applications, November 2000, pp. 1613-1620.

Allen, E.H., Ilic, M.D., "Stochastic Unit Commitment for Power Producers", IEEE Transactions on Energy Conversion (accepted, to appear).

Allen, E.H., Ilic, M.D., "Reserve Markets for Power Systems Reliability", IEEE PES Transactions, paper number 99 WM 343 (accepted, to appear)

Ilic, M., Arce, J.R., Yoon, Y., Fumagali, E., "Assessing Reliability in the New Environment", The Electricity Journal, pp. 55-67, March 2001.

Ilic, M., Skantze, P., Visudhiphan, P., "Electricity Troubles in California: Who's Next?", IEEE Spectrum Magazine, February 2001, pp.11-13.

Allen, E., N. LaWhite, Y.T. Yoon, J.W. Chapman and M.D. Ilic, "Interactive Object-Oriented Simulation of Interconnected Power Systems using SIMULINK," the IEEE Transactions on Education, vol. 44, February 2001.

Ilic, M., Hyman, L., "Don't Rush the Seamstress: Second Thoughts on the Marriage of the Northeast Grids", Public Utilities Fortnightly, September 1, 2001.

Marija Ilic, Eric Hsieh, Prasad Ramanan, "Pricing of Distributed Multilateral Energy Transactions to Ensure System Security and Guide Economic Dispatch, IEEE Trans., on Power Systems", May 2003.

Talukdar, S., Apt, J., Ilic, M., Lave, L., Granger, M., "Cascading Failure: Survival versus Prevention", The Electricity Journal, 25-31, Nov 2003.

Ilic, M., Apt, J., Khosla, P., Lave, L., Morgan, G., Talukdar, S., "Introducing Electric Power into a Multi-Disciplinary Curriculum for Network Industries, IEEE Tran. On Power Systems, Special Issue on Education, February 2004.

Apt, J., Lave, L., Talukdar, S., Granger, M., Ilic, M., "Electrical Blackouts: A Systemic Problem," Issues in Science and Technology, 2004.

Fumagali, E., Black, J., Vogelsang, I., Ilic, M., "Quality of Service Provision in Electric Power Distribution Systems Through Reliability Insurance", TPWRS-00181-2002, IEEE Trans.on Power Systems, Vol. 19, Issue 3, pp. 1286-1293, 2004.

Skantze, P., Ilic, M., Gubina, A., "Modeling Locational Price Spreads In Competitive Electric Power Applications for Transmission Rights Valuation and Replication", Institute of Mathematics and Its Applications - Journal of Management Mathematics (Oxford University Press); Special Issue on Optimisation for the De-Regulated Electrical Power Industry, (2004), 15, pp. 291-319.

Ilic, M., Black, J.W., Prica, M. " Distributed Electric Power Systems of the Future: Institutional and Technological Drivers for Near-Optimal Performance", Journal on Electric Power Systems Research (EPSR), Special Issue on Distributed Systems, May 2005 (invited).

Minoia, Anna, Damien Ernst, Maria Dicorato, Michele Trovato, and Marija Ilic, "Reference Transmission Network: A Game Theory Approach – Part I: Model," IEEE Transactions on Power Systems. Submitted January 2005.

Minoia, Anna, Damien Ernst, Maria Dicorato, Michele Trovato, and Marija Ilic, "Reference Transmission Network: a Game Theory Approach – Part II: Application." IEEE Transactions on Power Systems. Submitted January 2005.

Botterud, A., Ilic, M.D., Wangensteen, "Optimal Investments in Power Generation Under Centralized and Decentralized Decision Making", IEEE Transactions on Power Systems, February 2005, vol. 20-1, pp. 254-263.

Botterud, A., Ilic, M.D., Wangensteen, "Optimal Investments in Power Generation Under Centralized and Decentralized Decision Making", IEEE Transactions on Power Systems, February 2005, vol. 20-1, pp. 254-263.

Skantze, Petter, Ilic, Marija, Gubina, Andrej, "Modeling Locational Price Spreads in Competitive Electricity Markets; Applications for Transmission Rights Valuation and Replication, Institute of Mathematics and Its Applications," *Journal of Management Mathematics* (Oxford University Press); Special Issue on Optimisation for the De-Regulated Electrical Power Industry —Invited paper. To appear January 2005.

Ilic, M., Black, J.W., Prica, M. " Distributed Electric Power Systems of the Future: Institutional and Technological Drivers for Near-Optimal Performance", Journal on Electric Power Systems Research (EPSR), Special Issue on Distributed Systems, May 2005 (invited).

Minoia, Anna, Damien Ernst, Maria Dicorato, Michele Trovato, and Marija Ilic, "Reference Transmission Network: A Game Theory Approach." IEEE Transactions on Power Systems, Vol. 21, No. 1, Feb. 2006, pp. 249-259.

Elizondo, M., M. Ilic, and P. Mercado. Determining the Cost of Dynamic Control Capacity for Improving System Efficiency, IEEE Transactions of Power Systems, 2006 (under review)

Ilic, M., Reconciling Hierarchical Control and Open Access in the Changing Electric Power Industry, IEEE Proceedings Special Issue on Large Scale Systems (invited, to appear)

Ilic, M., E. Allen, J. Chapman, C. King, J. Lang, and E. Litvinov. "Preventing Future Blackouts by Means of Enhanced Electric Power Systems Control: From Complexity to Order." IEEE Proceedings, November 2005.

Ilic, Marija. "The Intellectual Challenge Behind Bundling Diverse Energy Systems of the Future." January 2006, MIT Engineering Systems Division (ESD) Newsletter (invited).

Z. Lukszo, M.P.C. Weijnen, R.R. Negenborn, B. De Schutter, and Marija Ilić. "Challenges for process system engineering in infrastructure operation and control." European Symposium on Computer Aided Process Engineering – 16, A.B. Editor et al. (Editors) © 2006 Elsevier B.V./Ltd. (Invited plenary)

Blumsack, Seth, Lester B. Lave, and Marija Ilic. "A Quantitative Analysis of the Relationship Between Congestion and Reliability in Electric Power Networks." Energy Journal submission, Aug. 2006.

Blumsack, Seth, Marija Ilic, and Lester B. Lave. "Decomposing Congestion and Reliability." Submitted to IEEE Transactions on Power Systems (Nov. 2006).

Anna Minoia, Damien Ernst, Maria Dicorato, Michele Trovato, and Marija Ilic. "Reference Transmission Network: A Game Theory Approach." IEEE Transactions on Power Systems, Vol. 21, No. 1, Feb. 2006, pp. 249-259.

Marija Ilic, Jason W. Black, Marija Prica. "Distributed Electric Power Systems of the Future: Institutional and Technological Drivers for Near-Optimal Performance" Electric Power Systems Research, Elsevier. Available online Nov 2006 at www.sciencedirect.com.

Z. Lukszo, M.P.C. Weijnen, R.R. Negenborn, B. De Schutter, and Marija Ilić, "Challenges for Process System Engineering in Infrastructure Operation and Control," 9th International Symposium on Process Systems Engineering, W. Marquardt, C. Pantelides (Editors) © 2006 Published by Elsevier B.V. 16th European Symposium on Computer Aided Process Engineering 95-100.

Ilic, M., Black, J., Prica, M., Distributed Electric Power Systems of the Future: Technological and Institutional Drivers for Near-Optimal Performance, Journal of Electric Power Systems Research, EPSR -2396, Elsevier (invited) to appear in 2007.

Allen, E., J. Lang, and M. Ilic., "A Combined Equivalenced-Electric and Market Representation of the Northeastern Power Coordinating Council (NPCC) US Electric Power System," IEEE Transactions on Power Systems, Manuscript No. TPWRS-00915-2006. (Submitted Dec 2006).

Ilic, Marija. "From Hierarchical to Open Access Electric Power Systems." IEEE Special Issue on "Modeling, Identification, and Control of Large-Scale Dynamical Systems," Simon Haykin and Eric Moulines, Guest Editors. Vol. 95, No. 5, May 2007.

Blumsack, Seth, Lester Lave, and Marija Ilic. "A Quantitative Analysis of the Relationship between Congestion and Reliability in Electric Power Networks." The Electricity Journal. Vol. 28, No. 4, 2007.

4.C Papers in Symposium or Conference Proceedings

Rakic, M. and M.D. Ilic, "Jedno resenje sistema upravljanja bilateralnim manipulatorom," (One Solution for the Control of a Bilateral Manipulator), XX Yugoslavian Conference for Electronics, Telecommunication, Automation and Nuclear Technology, Opatija, Yugoslavia, June 1976.

Ilic, M.D., "Visekriterijumski pristup problemu optimalne eksploatacije elektroenergetskih sistema," (Multicriteria Approach to Optimal Operation of Power Systems), XXI Yugoslavian Conference for Electronics, Automation, Telecommunication and Nuclear Technology, Banja Luka, Yugoslavia, June 1977.

Narasimhamurthi, N. and M. Ilic-Spong, "A Proof of the Localized Response of Large Interconnected Power System in Steady State," Proceedings of the Allerton Conference, Monticello, IL, October 1980, pp. 997-1002.

Ilic-Spong, M. and J. Zaborszky, "A Different Approach to Load Flow," Proceedings of the Power Industry Computer Applications Conference, Philadelphia, PA, May 1981, pp. 18-26.

Ilic-Spong, M., B.L. Jiang and J. Zaborszky, "An Exact Non-linear Y- Delta Transformation for the S-E Presentation of Electric Power Systems," Proceedings of the Allerton Conference, Monticello, IL, October 1981, pp. 786-795.

Ilic-Spong, M., Mark Spong and Robert Fischl, "A No-gain Theorem for Steady State Electric Power Systems with Losses," Proceedings of the Large Scale Systems Symposium, Norfolk Beach, VA, October 1982.

Ilic-Spong, M. and M. Varghese, "On a Reactive Power Fault Modeling in Large-Scale Electric Power Systems," Proceedings of the 21st Annual Allerton Conference on Communications, Control and Computing, Urbana, IL, October 1983, pp. 935-944.

Ilic-Spong, M. and R. Fischl, "Steady State Electric Network Theorems for Power Systems," Proceedings of the International Symposium on Circuits and Systems, Newport Beach, CA, 1983, pp. 1180-1183.

Ilic-Spong, M. and J. Thorp, "Conditions for Localized Response in Decoupled Voltage-Var Networks," Proceedings of the Power System Computer Control Conference, Helsinki, Finland, 1984, pp. 664-670.

Ilic-Spong, M. and R.J. Thomas, "A Dynamical Model for Electric Power Systems Which Includes Excitation and Load Effects," Proceedings of the Conference on Information Sciences and Systems, Princeton, NJ, March 1984, pp. 624-627.

Thorp, J.S., M. Ilic-Spong and D. Schultz, "Existence and Uniqueness of a Solution to the Reactive Power Problem for an Electric Power Network," Proceedings of the IEEE International Conference on Circuits and Systems, Montreal, Canada, May 1984, pp. 372-376.

Ilic-Spong, M., "An Electric Power Adjoint Network for Reactive Power Voltage Studies," Proceedings of the IEEE International Conference on Circuits and Systems, Montreal, Canada, May 1984, pp. 368-371.

Ilic-Spong, M., "A Complex Power-Complex Voltage S-E Graph for Electric Power Systems Studies," Proceedings of the Fifth International Symposium on Network Theory, Sarajevo, Yugoslavia, September 1984, pp. 189-194.

Thorp, J.S., M. Ilic-Spong, and G.M. Varghese, "Optimal Secondary Voltage-Var Control Using Pilot Point Information Structure," Proceedings of the 23rd Conference on Decision and Control, Las Vegas, NV, December 1984, pp. 462-465.

Ilic-Spong, M. and A. Phadke, "Redistribution of Reactive Power Flow in Contingency Studies," Proceedings of the 14th Power Industry Computer Applications Conference, San Francisco, CA, May 1985.

Ilic-Spong, M., "An Approach to Designing Controllers of Doubly Salient Machines," Proc. of the American Control Conference, Boston, MA, June 1985, pp. 563-565.

Ilic-Spong and D. Schulz, "Development of a New Bound on Error in the Solution to the Decoupled Reactive Power - Voltage Q-V Load Flow," Proceedings of the IEEE International Conference on Circuits and Systems, Kyoto, Japan, June 1985, pp. 1245-1248.

Ilic-Spong, M. and T. Miller, "Non-Linear Control of Switched Reluctance Motor Drives Which Produces a Desired Torque," Proceedings of the 16th IEEE Power Electronics Specialists Conference, Toulouse, France, June 1985 (best paper in the control area), pp. 42-48.

Ilic-Spong, M., T. Miller, and S. MacMinn, "Control of Variable Reluctance Motor Drives," Proceedings of the 14th Annual Symposium on the Incremental Motion Control Systems & Devices, Urbana, IL, June 1985, pp. 353-360.

Ilic-Spong, M. and R. Marino, "Stabilization and Voltage Regulation of an Electric Power System with (P,Q) Load Buses Preserved," Proceedings of Decision and Control Conference, Fort Lauderdale, FL, December 1985, pp. 812-817.

Ilic-Spong, M. and J. Medanic, "Strategies for Real-Time Voltage/Var Control Strategies," Proceedings of the 2nd IEE Conference on Monitoring, Communications and Control of Power Systems, London, England, 1986.

Ilic-Spong, M. and F. K. Mak, "Torque Control of Switched Reluctance Drives with the Saturation Included," Proceedings of the IEEE Power Electronics Specialists Conference, Vancouver, BC, June 1986, pp. 465-475.

Ilic-Spong, M., R. Marino, S. Peresada, and D.G. Taylor, "Nonlinear Control of Switched Reluctance Motors in Robotics Applications," Proceedings of Conference on Applied Motion Control, Minneapolis, MN, June 1986, pp. 129-136.

Medanic, J., M. Ilic-Spong, and J. Christensen, "Discrete Models for Slow Voltage Dynamics for Under Load Tap Changing Transformer Coordination," IEEE Power Engineering Society Meeting, Mexico City, Mexico, July 1986.

Ilic-Spong, M., M. Crow, and M.A. Pai, "Transient Stability Simulation by Waveform Relaxation Methods," IEEE Power Engineering Society Meeting, Mexico City, Mexico, July 1986.

Zaborszky, J., M. Ilic-Spong, G. Huang, and F. Dobraca, "Computer Control of the Large Power Systems During Faults for Inherently Adaptive Selective Protection," IEEE Power Engineering Society Meeting, Mexico City, Mexico, July 1986.

Ilic-Spong, M. and J. Medanic, "Modeling and Control of Slow Voltage Dynamics in Electric Power Systems," Proceedings of the IFAC Symposium on Large Scale Systems, Lausanne, Switzerland, August 1986.

Taylor, D.G., M. Ilic-Spong, and S. Peresada, "Nonlinear Composite Control of Switched Reluctance Motors," Proceedings of the 12th IEEE Conference on Industrial Electronics, Milwaukee, WI, October 1986, pp. 739-749.

J. Christensen and M. Ilic-Spong, "Voltage Control Using an L_2 -Norm Pilot Point Selection," Proceedings of the North American Power Symposium, Ithaca, NY, October 1986.

Dobraca, F. and M. Ilic-Spong, "A Novel Approach to the Protection Problem," Proceedings of the North American Power Symposium, Ithaca, NY, October 1986, pp. 93-106.

Crow, M., M. Ilic-Spong, and M.A. Pai, "Dynamic Simulation of Large Electric Power Systems Utilizing Parallel Processing," Proceedings of the North American Power Symposium, Ithaca, NY, October 1986, pp. 260-269.

Verghese, G., M. Ilic-Spong, and J. Lang, "Modeling and Control Challenges in Power Electronics," Proceedings of the 25th IEEE Conference on Decision and Control, Athens, Greece, December 1986, pp. 39-45.

Lang, J., G. Verghese, and M. Ilic-Spong, "Opportunities in Estimation and Control of Electrical Machines," Proceedings of the IEEE Conference on Decision and Control, Athens, Greece, December 1986, pp. 379-387.

Taylor, D.G., M. Ilic-Spong, M. Marino and S. Peresada, "A Feedback Linearizing Control for Direct-Drive Robots with Switched Reluctance Motors," Proceedings of the 25th IEEE Conference on Decision and Control, Athens, Greece, December 1986, pp. 388-396.

Ilic-Spong, M., J. Christensen, and K.L. Eichorn, "Secondary Voltage Control Using Pilot Point Information," Proceedings of the IEEE Power Industry Computer Applications Conference, Montreal, Canada, May 1987, pp. 128-135.

Taylor, D. and M. Ilic, "Linearization and Control of Switched Reluctance Motors," Proceedings of the 16th Annual Symposium on the Incremental Motion Control Systems and Devices, Urbana, IL, June 1987, pp. 175-182.

Zaborszky, J., M. Ilic and G. Huang, "Inherently Adaptive Selective Protection Based on the Nested Protection Unit Principle and Hypothesis Testing," Proceedings of the Conference on Computer Relaying -Future Direction and Impact, Blacksburg, VA, October 1987.

Crow, M.L., M. Ilic, and M.A. Pai, "Waveform Relaxation Methods for Solving Differential-Algebraic Equations and Their Applications to Power Systems Simulations," SIAM Meeting, Denver, CO, October 1987.

Ilic, M. and F. Dobraca, "A New Algorithm for Digital Protection of Series Compensated Lines," Proceedings of the Conference on Computer Relaying -Future Directions and Impact, Blacksburg, VA, October 1987.

Ilic, M. and F.K. Mak, "Mid-Range Voltage Dynamics Modeling with the Load Controls Present," Proceedings of the IEEE Conference on Decision and Control, Los Angeles, CA, December 1987, pp. 399-407.

Ilic, M. and A. Stankovic, "Feasibility Problems in Transferring Large Reactive Power Over the Large Distances," Proceedings of the IEEE Conference on Decision and Control, Los Angeles, CA, December 1987, pp. 399-407.

Ilic, M., "Advanced Control of Electric Drive Systems," Proceedings of the American Power Conference, Chicago, IL, 1987, pp. 774-779 (invited).

Ilic, M., K. Liebezeit, and S. Leeb, "Exact Nonlinear Analysis of Switched Mode Power Converters," Proceedings of the IEEE Power Electronics Specialist Conference, Kyoto, Japan, May 1988, pp. 977-986.

Perunicic, B., M. Ilic, and A. Stankovic, "Short Time Stabilization of Power Systems Via Line Switching," Proceedings of the International Symposium on Circuits and Systems, Espoo, Finland, 1988, pp. 917-921.

Taylor, D.G., M.J. Wooley, and M. Ilic, "Implementation of Linearizing and Decoupling Feedback Transformation for Switched Reluctance Motors," Proceedings of the 17th Incremental Motion Control Conference, Urbana, IL, June 1988, pp. 173-184.

Ilic, M. and M.L. Crow, "Parallel Algorithms for Large Scale Power System Dynamic Simulation," Proceedings of the IEEE Automatic Control Conference, Atlanta, GA, June 1988, pp. 1795-1798.

Crow, M.L. and M. Ilic, "Effects of System Decomposition and Waveform Relaxation Windowing on the Efficiency of Large Scale Power Systems Simulation," Proceedings of the 12th IMACS World Congress on Scientific Computation, Paris, France, July 1988.

Ilic, M., "New Approaches to Voltage and Reactive Power Monitoring and Control," Proceedings of a Special NSF/EPRI/Engineering Foundation Sponsored Workshop on Voltage Problems, Potosi, MO, September 1988, pp. 8.1-8.27.

Ilic, M. and F.K. Mak, "A Two-Level Control Coordination in Interconnected Power Systems," Proceedings of the IEEE Conference on Decision and Control, Tampa, FL, 1989, pp. 345-348.

Ilic, M. and A. Stankovic, "Voltage Problems on Transmission Networks Subject to Unusual Power Flow Patterns," IEEE Power Engineering Society Meeting, New York, NY, January 1989.

Ilic, M. and F. Mak, "Conditions for Separation of Electromechanical and Electromagnetic Dynamics in Electric Power Systems," Proceedings of the International Symposium on Circuits and Systems, Seattle, WA, May 1989, pp. 1246-1251.

Ilic, M. and F.K. Mak, "Mid-Range Voltage Dynamics in Electric Power Systems," Proceedings of the IEEE International Symposium on Circuits and Systems, Seattle, WA, May 1989, pp. 1988-1991.

Ilic, M. and F. Mak, "A New Class of Fast Nonlinear Voltage Controllers and Their Impact on Improved Transmission Capacity," Proceedings of the American Control Conference, Pittsburgh, PA, June 1989, pp. 1246-1251.

Crow, M.L., M. Ilic, and J. White, "Convergence Properties of the Waveform Relaxation Algorithm as Applied to Electric Power Systems," Proceedings of the International Symposium on Circuits and Systems, Seattle, WA, June 1989, pp. 1863-1866.

Crow, M.L. and M. Ilic, "The Waveform Relaxation Method for Systems of Differential Algebraic Equations with Applications to Power System Transient Stability Analysis," Proceedings of the American Control Conference, Pittsburgh, PA, June 1989, pp. 1771-1776.

Ilic, M. and F.K. Mak, "Voltage Dynamics of Electric Power Systems in Their Closed Loop Operation," Proceedings of the IEEE International Symposium on Circuits and Systems, New Orleans, LA, May 1990, pp. 1822-1827.

Crow, M.L. and M. Ilic, "The Parallel Implementation of the Waveform Relaxation Method for the Simulation of Structure-Preserved Power Systems," Proceedings of the IEEE International Symposium on Circuits and Systems, New Orleans, LA, May 1990, pp. 1285-1289.

Ilic, M., "Nonlinear Monotone Networks and Their Role in the Electric Power Systems," Proceedings of the IEEE International Symposium on Circuits and Systems, New Orleans, LA, May 1990, pp. 148-151.

Wyatt, J.L. and M. Ilic, "Time-Domain Reactive Power Concepts for Nonlinear, Nonsinusoidal or Nonperiodic Networks," Proceedings of the IEEE International Symposium on Circuits and Systems, New Orleans, LA, May 1990, pp. 387-390.

Mak, F.K. and M. Ilic, "Towards Most Effective Control of Reactive Power Reserves in Electric Machines," Proceedings of the 10th Power Systems Computation Conference, Graz, Austria, August 1990, pp. 359-367.

Crow, M.L. and M. Ilic, "The Waveform Relaxation Method for Systems of Differential Algebraic Equations," Proceedings of the 29th IEEE Conference on Decision and Control, Honolulu, HI, December 1990, pp. 453-458.

Lim, Kok-Kee and M. Ilic, "Control of Underload Tap Changing Transformers," Proceedings of the American Control Conference, Boston, MA, 1991.

Ilic, M. and C.M. Jayko, "Modeling, Analysis and Simulation of Canal Unit #1 Tripping Event on the COM Electric System," Proceedings of the Electric Power Research Institute Conference on Power Plant and Power System Training Simulators and Modeling, Fort Lauderdale, FL, March 1991.

Ilic, M., "Short-Term Energy Management in a Competitive Utility Environment," Proceedings of the NSF Workshop on the Impact of a Less Regulated Utility Environment on Power System Control and Security, Madison, WI, April 1991, pp. 15-37.

Sabanovic-Behlilovic, N., B. Perunicic, A. Sabanovic, and M. Ilic, "Variable Structure Control in Active Power Filter Control," Proceedings of the Workshop on Variable Structure Control of Power Conversion Systems, Reno, NV, June 1991, pp. 109-113.

Bertagnolli, D., M. Ilic, et al., "Method and Test Results for the MIT Approach to Steady State Voltage Monitoring and Corrective Actions," Proceedings of the International Workshop on Bulk Power Systems Voltage Phenomena: Voltage Stability and Security, Madison, WI, August 1991, pp. 241-252.

Ilic, M., "A Survey of the Present State-of-the-Art Voltage Control with Emphasis on Potential Role of FACTS Devices," Proceedings of the International Workshop on Bulk Power Systems Voltage Phenomena: Voltage Stability and Security, Madison, WI, August 1991, pp. 379-393.

Ilic, M., "Network Theoretic Conditions for Existence and Uniqueness of Steady State Solutions to Electric Power Circuits," Proceedings of the IEEE International Symposium on Circuits and Systems, San Diego, CA, May 1992, pp. 2821-2827.

Tolikas, M., Lj. Trajkovic, and M. Ilic, "Homotopy Methods for Solving Decoupled Power Flow Equations," Proceedings of the IEEE International Symposium on Circuits and Systems, San Diego, CA, May 1992, pp. 2833-2839.

Doerry, N.H., J.V. Amy, M. Tolikas, J.L. Kirtley, and M. Ilic, "Object Oriented Approach to the Simulation of Shipboard Electric Power Systems," Proceedings of the American Control Conference, Chicago, IL, June 1992, pp. 1660-1665.

Lim, K.K. and M. Ilic, "Control Coordination on the Distribution Power Network," Proceedings of the IEEE International Symposium on Circuits and Systems, Singapore, June 1992, pp. 1232-1235.

Chapman, J.W. and M. Ilic, "Damping Multimachine Power System Oscillations with Feedback Linearizing Excitation Control," Proceedings of the American Control Conference, Chicago, IL, June 1992, pp. 1734-1735.

Chapman, J.W., M. Ilic, C.A. King, et al., "Stability of a Multi-Machine Power System Via Decentralized Feedback Linearizing Excitation Control," IEEE Power Engineering Society Meeting, Seattle, WA, July 1992.

Nishimura, F., R.D. Tabors, M. Ilic, and J.R. Lacalle-Melero, "Benefit Optimization of Centralized and Decentralized Power Systems in a Multi-Utility Environment," IEEE Power Engineering Society Meeting, Seattle, WA, July 1992.

Chapman, J.W. and M. Ilic, "Some Robustness Results for Feedback Linearizing Control of Generator Excitation," Proceedings of 31st IEEE Conference on Decision and Control, Tucson, AZ, December 1992, pp. 1123-1128.

Liu, X., M. Ilic, C. Vialas, B. Heilbronn and M. Athans, "A New Concept of an Aggregate Model for Tertiary Control Coordination of Regional Voltages," Proceedings of 31st IEEE Conference on Decision and Control, Tucson, AZ, December 1992, pp. 2934-2940.

Hasler, M., C. Wang, M. Ilic, and A. Zobian, "Computation of Static Stability Margins in Power Systems Using Monotonicity," Proceedings of the International Symposium on Circuits and Systems, Chicago, IL, May 1993.

King, C.A., J.W. Chapman and M. Ilic, "Feedback Linearizing Excitation Control on a Full-Scale Power System Model," IEEE Power Engineering Society Meeting, Washington, DC, July 1993.

Ilic, M., S. X. Liu and C. Vialas, "A New Concept for a Tertiary Coordination of Secondary Voltage Control on the French Power Network," Proceedings of the 11th Power Systems Computation Conference, Avignon, France, August 1993.

Ilic, M. and S.X. Liu, "A Simple Structural Approach to Modeling and Analysis of the Inter-area Dynamics of the Large Electric Power Systems: Part I-- Linearized Models of Frequency Dynamics," Proceedings of the 1993 North American Power Symposium, Washington, DC, October 1993, pp. 560-569 (best student paper award).

Ilic, M. and S.X. Liu, "A Simple Structural Approach to Modeling and Analysis of the Inter-area Dynamics of the Large Electric Power Systems: Part II-- Nonlinear Models of Frequency and Voltage Dynamics," Proceedings of the North American Power Symposium, October 1993, pp. 570-578 (best student paper award).

Eidson, B. and M. Ilic, "High Resolution Techniques to Estimate the Magnitude, Phase and Offset Frequency of Phasors in the Presence of Noise and Interference," Proceedings of the Precise Measurements in Power Systems Conference, Washington, DC, October 1993.

Yehia, M., R. Chedid, Z. Jaber, M. Ilic and A. Zobian, "An Improved Dynamically Allocated Data Structure for Power System Problems," Proceedings of the IAESTED International Conference on Reliability, Quality Control and Risk Assessment, Cambridge, MA, October 1993.

Ilic, M., S.X. Liu and J.W. Chapman, "Control of the Inter-Area Dynamics Using FACTS Technologies in Large Electric Power Systems," Proceedings of the 32nd IEEE Conference on Decision and Control, San Antonio, TX, December, 1993.

Ilic, M., S.X. Liu and C. Vialas, "Some Optimality Notions of Voltage Profile for the Steady State Operation of the Electric Power Systems," Proceedings of the Symposium on Bulk Power System Voltage Phenomena III, Davos, Switzerland, August 1994, pp. 243-249.

Chapman, J.W. and M. Ilic, "Power System Modeling for Coupled Voltage/Power Dynamics," Proceedings of the Symposium on Bulk Power System Voltage Phenomena III, Davos, Switzerland, August 1994, pp. 271-278.

Ilic, M., "Performance-Based Value of Transmission Services for Competitive Energy Management," Proceedings of the 26th North American Power Symposium, Manhattan, KS, 1994.

Chapman, J.W. and M. Ilic, "A New Model Formulation for Power System Voltage Control During Large Disturbances," Proceedings of the 33rd IEEE Conference on Decision and Control, Orlando, FL, December 1994 pp. 4049-4054.

Chin, K., S. Huang, M. Ilic, M. and A. Zobian, "Non-linear Tracking Control of Small Electrical Machines," Proceedings of the 33rd IEEE Conference on Decision and Control, Lake Buena Vista, FL, December 1994.

Eidson, B. and M. Ilic, "AGC: Technical Enhancements, Costs, and Responses to Market-driven Demand," Proceedings of the American Power Conference, Chicago, IL, April 1995, pp. 156-160.

Ilic, M., "A Brief Survey of Present System-wide Functions and Their Role in Distributed Energy Markets: Limits to Distribution," Proceedings of the American Power Conference, Chicago, IL, April 1995.

Zobian, A. and M. Ilic, "A Simple Solution to the Loop Flow Problem in Pricing Transmission Services," Proceedings of the American Power Conference, Chicago, IL, April 1995.

Zobian, A. and M. Ilic, "A Steady-State Voltage Monitoring and Control Algorithm Using Localized Least Squares Minimization of Load Voltage Deviation," IEEE Power Engineering Society Meeting, Portland, OR, July 1995.

Allen, E., H., J.W. Chapman and M. Ilic, "Eigenvalue Analysis of the Stabilizing Effects of Feedback Linearizing Control on Subsynchronous Resonance," Proceedings of the 4th IEEE Conference on Control Applications, Albany, NY, September 1995, pp. 395-402.

Rao, N.D. and M. Ilic, "Pricing Frequency Control in a Deregulated Electricity Market--An Application of the Interaction Balance Method," Proceedings of the North American Electric Power Symposium, Bozeman, MT, October 1995, pp. 63-73.

Allen, E., N. LaWhite, Y.T. Yoon, J.W. Chapman and M. Ilic, "Interactive Object-Oriented Simulation of Interconnected Power Systems using SIMULINK," Proceedings of the North American Electric Power Symposium, Bozeman, MT, 235-243, October 1995, pp. 235-243.

Zobian, A. and M. Ilic, "Allocation of Power Imbalance caused by Economic Transactions," Proceedings of the North American Electric Power Symposium, Bozeman, MT, October 1995, pp. 52-62.

Eidson, B. and M. Ilic, "Advanced Generation Control with Economic Dispatch," Proceedings of the IEEE Conference on Decision and Control, New Orleans, LA, December 1995.

Allen, E.H., J.W. Chapman and M. Ilic, "Effects of Torsional Dynamics on Nonlinear Generator Control, Part I," Proceedings of the 34th IEEE Conference on Decision and Control, New Orleans, LA, December 1995, pp. 3887-3894 (best student paper award)

Allen, E.H., J.W. Chapman and M. Ilic, "Effects of Torsional Dynamics on Nonlinear Generator Control, Part II," Proceedings of the 34th IEEE Conference on Decision and Control, New Orleans, LA, December 1995, pp. 3479-3485.

Ilic, M., Graves, F.C., "Optimal Use of Ancillary Generation under Open Access and Its Possible Implementation," Proceedings of the Power Systems Computer Conference, Dresden, August 1996.

Ilic, M., "A Possible Framework for Implementing Energy Transactions Into Real-time System Operation and Pricing for System Services," Proceedings of the EPRI Conference on Innovative Approaches to Electricity Pricing: Managing the Transition to Market-Based Pricing, La Jolla, CA, March 1996. (invited)

Ilic, M., F.D. Galiana, L. Fink, A. Bose, P. Mallet and H. Othman, "Transmission Capacity in Power Networks," Proceedings of the Power Systems Computation Conference, Dresden, Germany, August 1996, pp. 5-21 (invited survey).

Skantze, P. and M. Ilic, "Price-Driven Model for System Control Under Open Access: Short-term Gaming for Profit vs. System Regulation," Proceedings of the North American Power Symposium, MIT, Cambridge, MA, November 1996, pp. 89-96.

Cardell, J. and M. Ilic, "Modeling and Stability Analysis for Distributed Generation Systems", Proceedings of the North American Power Symposium, MIT, Cambridge, MA, November 1996, pp. 239-347.

Lecinq, B. and M. Ilic, "Peak-load Pricing for Transmission Access," Proceedings of the Hawaii International Conference on System Sciences, Maui, HI, January 1997, pp. 624-633.

Ilic, M., Yu, C.N., "Minimal system regulation and its value in a changing industry", Proceedings of the IEEE Conference on Control Applications, Ann Arbor, MI, November 1996.

Ilic, M., P. Skantze, and C.N. Yu, "Market-based Frequency Regulation: Can it be Done, Why and How?" Proceedings of the American Power Conference, April, 1997, Chicago, IL.

Chapman, J.W., J.M. Fini and M. Ilic, "A Time-Scale Decomposition for Secure Control with Limited Input Magnitude," Proceedings of the IEEE Automatic Control Conference, Albuquerque, NM, June 1997.

Younes, Z. and M. Ilic, "Transmission System Constraints in Non-Perfect Electricity Markets," Proceedings of the 18th Annual North American Conference of the International Association of Energy Economists, San Francisco, CA, September 1997, pp. 256-265.

Lerner, P. and M. Ilic, "On the Value of Transmission Systems: Incentives for Investment Under Open Access," Proceedings of the 18th Annual North American Conference of the International Association of Energy Economists, San Francisco, CA, September 1997, pp. 330-339.

Allen, E.H. and M. Ilic, "Stochastic Unit Commitment in a Deregulated Utility Industry," Proceedings of the North American Power Symposium, Laramie, WY, October 1997, pp. 105-112.

Banales, S. and M. Ilic, "On the Role and Value of Voltage Support in a Deregulated Power Industry," Proceedings of the North American Power Symposium, Laramie, WY, October 1997, pp. 471-478.

Yoon, Y. B., J.B. Choo, Y.T. Yoon and M. Ilic, "Potential Use of FACTS on the Korea Electric Power Co. System," Proceedings of the EPRI Workshop on Power Delivery in the 21st Century LaJolla, CA, November 1997.

Ilic, M. and L. Hyman, "Incentives for Transmission Investments," Proceedings of the EPRI Workshop on Power Delivery in the 21st Century, LaJolla, CA, November 1997.

Ilic, M., "Public Comments to the Task Force on Electric System Reliability", Secretary of Energy Advisory Board", June 12, 1997.

Younes, Z. and M. Ilic, "Generation Strategies for Gaming Transmission Constraints: Will the Deregulated Electric Power Market Be an Oligopoly?" Proceedings of the Hawaii Systems Conference, Kona, HI, January 1998.

Galiana, F.D., P. Cuervo Franco and M. Ilic, "Pool Generation Dispatch with Independent Transmission Projects," Proceedings of the 21st Annual International Conference of the International Association for Energy Economists, Quebec City, Canada, May 1998, pp. 105-114.

Ilic, M., Skantze, P., Yu, C-N., Fink, L.H., Cardell, J., "Power Exchange for Frequency Control (PXFC)", Proceedings of the International Symposium on Bulk Power Systems Dynamics and Control-IV: Restructuring, Santorini, Greece, August 23-28, 1998

Ilic, M., Leotard, J-P., Rochlin, C., Stoft, S., "On the Objectives of Transmission Pricing", Proceedings of the International Symposium on Bulk Power Systems Dynamics and Control-IV: Restructuring, Santorini, Greece, August 23-28, 1998

Connors, S., Ilic, M., "Making Electric Power Deregulation Work", Op/Ed, Boston Globe, December 13, 1998, pg. D7.

Ilic, M., Yoon, T.Y., Yu, C.N., "The Role of Reactive Power/Voltage Support in Creating Market Power", *Inform* 99, Cincinnati, OH, May 1999.

Ilic, M., Skantze, P., Yu, C-N., Fink, L.H., Cardell, J., "Power Exchange for Frequency Control (PXFC)", Proceedings of the IEEE Power Engineering Society Winter Meeting, February 1999, New York, NY.

Ilic, M., Yu, C-N., "A Possible Framework for Market-Based Voltage/Reactive Power Control," *ibid.*

Yu, C-N., Ilic, M., "Congestion Clusters-based Markets for Transmission Management," *ibid.*

Visudhiphan, P., Ilic, M., "Dynamic Models for Gaming in Electricity Markets", *ibid.*

Leotard, J-P., Ilic, M., "On the Objectives of Transmission Pricing under Open Access", *ibid.*

Prada, J.F., Ilic, M.D., "Pricing Reliability: A Probabilistic Approach", Proc. of the 1999 Large Engineering Systems Conference on Power Engineering (LESCOPE99), June 20-22, Halifax, Canada.

Skantze, P., Ilic, M., Chapman, J., "Stochastic Modeling of Electric Power Prices in a Multi-market Environment", Proceedings of the IEEE PES Winter Meeting, Singapore, Paper No. 2000WM-451, February 2000.

Yoon, Y., Raikar, S., Ilic, M., "Congestion Management for Large Electric Power Systems", paper number 114, Proceedings, 6th International Conference on Probabilistic Methods Applied to Power Systems, Madeira, Portugal, September 2000.

Yoon, Y., Collison, K., Ilic, M., "Implementation of Cluster-based Congestion Management Systems", Proceedings, Proceedings of the ICSOP, Ghana, July 2000.

Yoon, Y.T., Collison, K., Arce, J.R., Ilic, M.D., ``Congestion Management Systems Methods: Comparison on 118 Bus System'', Proceedings of the 32nd Annual North American Power Symposium, Waterloo, Canada, July 2000.

Arce, J.R., Ilic, M.D., Garces, F.F., ``Managing Short-term Reliability Related Risks'', Proceedings of the IEEE PES SM, Vancouver July 2001.

Arce, J.R., Ilic, M.D., Garces, F.F., ``Two New Methods to Assess Short-term Transmission Reliability'', Proceedings of the IEEE PES SM, Vancouver July 2001.

Black, J., Ilic, M., ``Survey of Technologies and Cost Estimates for Residential Electricity Services'', Proceedings of the IEEE PES SM, Vancouver July 2001.

Yoon, Y., Ilic, M., ``Secondary Market for Transmission and the Supporting Infrastructures'', Proceedings of the IEEE PES SM, paper number 01SM141 Vancouver July 2001.

Visudhiphan, P., Ilic, M., ``A Multi-agent Approach to Modeling Electricity Spot Markets'', Proceedings of the IFAC Symposium on Modeling and Control of Economic Systems, Austria, September 2001.

Skantze, P., Ilic, M., ``Investment Dynamics and Long Term Price Trends in Competitive Electricity Markets'', Proceedings of the IFAC Symposium on Modeling and Control of Economic Systems, Klagenfurt, Austria, September 6-8, 2001.

Gozum, O.N., Ilic, M.D., ``Decision Tools for Electricity Transmission Service and Pricing'', Proceedings of the IFAC Symposium on Modeling and Control of Economic Systems, Klagenfurt, Austria, September 6-8 2001.

Visudhiphan, P., Skantze, P., Ilic, M., ``Dynamics of New Investments in Competitive Electricity Markets and Its Impact on System Reliability'', Proceedings of the Conference on Methods to Secure Peak Load Capacity on Deregulated Electricity Markets, Stockholm, Sweden, June 7-8, 2001.

Fumagali, E., Black, J., Ilic, M., Vogelsang, I., ``A Reliability Insurance Scheme for the Electricity Distribution Grid'', Proceedings of the IEEE PES Summer Meeting, Vancouver, CA, July 2001.

Black, J., Ilic, M., ``Survey of Technologies and Cost Estimates for Residential Electricity Services'', Proceedings of the IEEE PES Summer Meeting, Vancouver, CA, July 2001.

Jelinek, M., Ilic, M., ``A Strategic Framework for Electric Energy: Technology and Institutional Factors and IT in a Deregulated Environment'', Proceedings of the NSF/DOE/EPRI sponsored Workshop on Research Needs in Complex Interactive Networks, Arlington, VA, December 2000, [www NSF/ENG/ECS](http://www.NSF/ENG/ECS).

Yong, Y., Collison, K., Ilic, M., ``Practical Implementation of Congestion Cluster Pricing Method'', Proceedings of the IEEE PES Summer Power Meeting, Vancouver, Canada, July 2001.

Yong, Y., Ilic, M., ``Secondary Market for Transmission and the Supporting Infrastructures'', Proceedings of the IEEE PES Summer Power Meeting, Vancouver, Canada, July 2001.

Yoon, Y., Ilic, M., Collison, K., ``Efficient Implementation of Inter-regional Transactions'', Proceedings of the IEEE PES Summer Power Meeting, Vancouver, Canada, July 2001.

Yoon, Y., Ilic, M., ``Price-Cap Regulation for Transmission: Objectives and Tariffs'', Proceedings of the IEEE PES Summer Power Meeting, Vancouver, Canada, July 2001.

Yoon, Y., Ilic, M., ``Independent Transmission Company (ITC) for Profit and Markets for Transmission'', Proceedings of the IEEE PES Summer Power Meeting, Vancouver, Canada, July 2001.

Ilic, M., ``Change of Paradigms in Complexity and Interdependencies of Infrastructures: The Case for Flexible New Protocols'', Proceedings of the OSTP/NSF White House Meeting, June 2001.

Ilic, M., Calovic, M., Mijuskovic, N., Golob, R., Gubina, A., Gubina, F., Skantze, P., ``A Model-Based Approach to Energy Economics in the Balkans: Effects of Political and Deregulation Processes'', 1st Balkan Power Conference, September 2001, Slovenia.

Ilic, M., Calovic, M., Mijuskovic, N., ``Energy Infrastructure in Yugoslavia: The Past and Challenges Ahead'', Proceedings of the 1st International Conference on Environmental Recovery in Yugoslavia, 27-30 September, 2001, Belgrade, Yugoslavia.

Zaborszky, J. and Ilic, M., ``Exploring the Potential of the All DC (ADC) Bulk Power Systems, Proceedings of the Bulk Power System Dynamics & Control V, August 26-31, 2001, Onomichi, Japan (plenary paper)

Visudhiphan, P., Ilic, M., Mladjan, M., ``On the Complexity of Market Power Assessment in the Electricity Spot Markets'', Proceedings of the IEEE PES Winter Power Meeting, New York City, NY, January 27-31, 2002.

Yoon, Y., Ilic, M., ``A Possible Notion of Short-term Value-based Reliability'', Proceedings of the IEEE PES Winter Power Meeting, New York City, NY, January 27-31, 2002.

Black, J.W., Watz, J., Ilic, M., ``Potential Benefits of Implementing Load Control'', Proceedings of the IEEE PES Winter Power Meeting, New York City, NY, January 27-31, 2002.

Arce, J., Ilic, M., Garces, F., ``Comparison of the Ex-ante and Ex-Post Methods for Short-Term Reliability Management'', Proceedings of the IEEE PES Winter Power Meeting, New York City, NY, January 27-31, 2002.

Visudhiphan, P., Ilic, M., ``On the Necessity of an Agent-based Approach to Assessing Market Power in the Electricity Markets'', Proceedings of the 10th International Symposium on Dynamic Games and Applications, July 8-12, 2002, St. Petersburg, Russia.W.K.

Gatterbauer, M. Ilic, *Counterexamples to commonly held assumptions on unit commitment and market power assessment*, Proceedings of North American Power Symposium 2002, October 14-15, 2002 in Tempe, Arizona.

Visudhiphan, P., Watz, J., Ilic, M., "Applications of Autonomous Agents for Modeling Electricity Spot Market Price Dynamics", Proceedings of the Power Systems Computation Conference, June 24-28, 2002, Seville, Spain.

Ilic, M., "Model-based Protocols for the Changing Electric Power Industry", Proceedings of the Power Systems Computation Conference, June 24-28, 2002, Seville, Spain.

Black, J., Ilic, M., "Demand-based Compensation for Distributed Generation", Proceedings of the Power Systems Conference on Distributed Generation, March 13-15, 2002, Clemson University, NC.

Botterud, A., Ilic, M., Wagensteen, I., "Optimization of Generation Investments under Uncertainty in Restructuring Power Markets", 12th ISAP 2003 Conference Proceedings, Aug 31-Sept 3, 2003, Lemnos, Greece.

Wagner, M., Skantze, P., Ilic, M., "Hedging Optimization Algorithm for Competitive Electric Power", 12th ISAP 2003 Conference Proceedings, Aug 31-Sept 3, 2003, Lemnos, Greece.

Ernst, D., Minoia, A., Ilic, M., "Market Dynamics Driven by the Decision-Making of Both Power Producers and Transmission Owners," Proceedings of the IEEE PES GM, Boulder, CO, June 2004.

Cardell, J., Ilic, M., "Maintaining Stability with Distributed Generation in a Restructured Industry," Proceedings of the IEEE PES GM, Boulder, CO, June 2004.

Wang, H., Ilic, M., Vogelsang, I., "Multi-Layered Unbundled Delivery of Electricity Service to Customers under Normal Conditions", Proceedings of the IEEE PES GM, Boulder, CO, June 2004.

Ilic, M., Toward a Multi-Layered Architecture of Large-Scale Complex Systems: Reliable and Efficient Man-Made Infrastructures, Proceedings of the MIT/ESD Symposium, Cambridge, MA, March 29-31, 2004.

Ilic, M., "Regulatory/Market and Engineering Needs for Enhancing Performance of the U.S. Electric Power Grid: Alternative Architectures and Methods for Their Implementation, Invited session "Informational and control reliability challenges in modern power systems" at the 8th World Multi-Conference on Systemics, Cybernetics and Informatics (SCI'2004), July 18-21, 2004 - Orlando, Florida, USA.

Ilic, M., "Transmission System Reliability and Security under Open Access", Proceedings of the IEEE PES GM, Boulder, CO, June 2004 (invited panel).

Patino -Echeverri, D., Z.Wu and M. Ilic. "Clean Air and Affordable Electricity?" Proceedings of the North American Power Symposium (NAPS), Univ of Idaho, Moscow, Idaho, August 9-10, 2004.

Caruso, E., Dicorato, M., Minoia, A., Ilic, M., “The Impact of Physical Bilateral Agreements on the Wholesale Electricity Price”, Proc. of the Bulk Power systems Decision and Control—VI, August 22-27, 2004, Cortina d’Ampezzo, Italy.

Ilic, M., Wu, F., “Research and Applications on Real Power Grids: Past Successes and Future Opportunities”, Proc. of the Bulk Power systems Decision and Control—VI, August 22-27, 2004, Cortina d’Ampezzo, Italy.

Ilic, M., Elizondo, M., Patnik, M., Romo, Z., Wu, Z., “Economies of Scope and Value of Coordination in the Evolving Electric Power Industry”, Proceedings of the CMU T&D Conf., December 16, 2004, Pittsburgh, PA.

Ilic, M., “Reconciling Hierarchical Control and Open Access in the Changing Electric Power Industry”, Proc. of the IEEE NSC2005, Invited paper for the Special Session on Intelligent Infrastructures, Tuscon, AZ, March 2005.

Ilic, Marija, “Discussion of the Paper by Michael Crew, ‘Reliability and Service Quality in Network Industries,’” Conference in Honor of Paul Kleindorfer: Recent Advances in Operations and Risk Management, May 5, 2005.

Ilic, Marija, “Discussion of the Paper by Michael Crew, ‘Reliability and Service Quality in Network Industries,’” Conference in Honor of Paul Kleindorfer: Recent Advances in Operations and Risk Management, May 5, 2005.

Ilic, M., “Reconciling Hierarchical Control and Open Access in the Changing Electric Power Industry”, Proc. of the IEEE NSC2005, Invited paper for the Special Session on Intelligent Infrastructures, Tuscon, AZ, March 2005.

Ilic, M., Le Xie, Overlapping Decomposition of Load Flow Jacobian for Static Voltage Stability Indicator in Interconnected Power System, <http://www.ece.cmu.edu/electricityconference>, Jan. 2006.

Elizondo, Marcelo, Marija Ilic, and Pedro Marcado. “Determining the Cost of Dynamic Control Capacity for Improving System Efficiency.” Proceedings of the IEEE General Power Meeting, Montreal CA, June 2006, paper # PESGM2006-000839.

Minoia, A., D. Ernst, D. M. Dicorato, M. Trovato, and M. Ilic. “Reference Transmission Network: A Game Theory Approach.” Proceedings of the IEEE General Power Meeting, Montreal CA, June 2006, paper #PESGM2006-000625.

Prica, Marija and Marija Ilic. “Peak-Load Pricing Based Planning for Distribution networks Under Change.” Proceedings of the IEEE General Power Meeting, Montreal CA, June 2006, paper # PESGM2006-000762.

Thatte, Anupam and Marija Ilic. “An Assessment of Reactive Power/Voltage Control Devices in Distribution Networks” Proceedings of the IEEE General Power Meeting, Montreal CA, June 2006, paper # PESGM2006-001233.

Zhang, Yi, Marija Prica, Marija Ilic, and Ozan Tonguz. "Toward Smarter Current Relays for Power Grids." Proceedings of the IEEE General Power Meeting, Montreal CA, June 2006, paper # PESGM2006-001215.

Blumsack, Seth, Lester B. Lave, and Marija Ilic. "Assessing the Tradeoffs Between Congestion and Reliability in Electric Power Networks." USAEE/IAEE 26th North American Conference, September 24-27, 2006, Ann Arbor MI.

Ilic, Marija. "ENTASK: Energy-Temporal and Structural Kit." Proceedings of the North American Power Symposium (NAPS) 2006, University of Illinois, Carbondale, IL, Sept. 2006, pp. 265-272.

Blood, Ellery, Marija D. Ilic, Jovan Ilic, and Bruce H. Krogh. "A Kalman Filter Approach to Quasi-Static State Estimation in Electrical Power Systems. Proceedings of the North American Power Symposium (NAPS) 2006, University of Illinois, Carbondale, IL, Sept. 2006, pp. 505-510.

Ilic, Jovan, Le Xie, and Marija Ilic. "Critical Voltage Monitoring Using Sensitivity and Optimal Information Machine Learning." Proceedings of the North American Power Symposium (NAPS) 2006, University of Illinois, Carbondale, IL, Sept. 2006, pp. 661-665.

Wu, Zhyiong and Marija Ilic. "Toward the Value-Based Generation Investments and Utilization: Stratum Electricity Market." Proceedings of the North American Power Symposium (NAPS) 2006, University of Illinois, Carbondale, IL, Sept. 2006, pp. 103-112.

Xie, Le, Jovan Ilic, and Marija Ilic, "Towards Grid Modernization through Enhanced Communications and Computing: Novel Performance Index and Information Structure for Monitoring Voltage Problems." Proceedings of the North American Power Symposium (NAPS) 2006, University of Illinois, Carbondale, IL, Sept. 2006, pp. 667-674.

Zhang, Yi, Marija Ilic, Marija Prica, and Ozan Tonguz. "Imbedding Smart Relays in Large Electric Power Networks: The Scalability Problem and a Possible Solution." Proceedings of the North American Power Symposium (NAPS) 2006, University of Illinois, Carbondale, IL, Sept. 2006, pp. 587-594.

Ilic, Marija, Jeffrey Lang, Xiaochuan Luo, and Eugene Litvinov. "The Critical Role of Computationally Robust Optimal AC Power Flow in Reliable and Efficient Voltage/Reactive Power Dispatch." Proceedings of the 2006 Power Systems Conference and Expo, Oct. 2006, Atlanta, GA.

Ilic, M., Makarov, J., Hawkins, D. , "Operation of Electric Power Systems with High Penetration of Wind Power: Risks and Possible Solutions", Wind Grid Integration Studies Panel, Proc of the IEEE PES General Meeting, Tampa, FL, June 24-28, 2007, Tampa, FL. (invited)

Prica, Marija and Marija D. Ilic, "Optimal Distribution Service Pricing for Investment Planning," Proceedings of the IEEE PES General Meeting, Tampa, FL, June 24-28, 2007, Tampa, FL.

Blumsack, Seth, Marija Ilic, and Lester B. Lave, "Separability and Independence of Congestion and Reliability: Theory and Simulations," Proceedings of the IEEE PES General Meeting, Tampa, FL, June 24-28, 2007, Tampa, FL.

Xie, Le, Jovan Ilic, and Marija D. Ilic, "Novel Performance Index and Multi-layered Information Structure for Monitoring Quasi-static Voltage Problems," Proceedings of the IEEE PES General Meeting, Tampa, FL, June 24-28, 2007, Tampa, FL.

Ilic, Marija D., Jeffrey H. Lang, and Eric H. Allen. "The Role of Numerical Tools in Maintaining Reliability During Economic Transfers: An Illustration Using the NPCC Equivalent System Model." Bulk Power System Dynamics and Control VII, August 19-24, 2007, Charleston, SC.

Ilic, Marija. "Engineering Energy Services of the Future by Means of Dynamic Energy Control Protocols (DECPs)." Proceedings of the IEEE Systems, Man and Cybernetics Conference (SMC 2007), October 2007, Montreal, Canada.

Ilic, Marija. "Engineering Future Energy Systems as Cyber-Physical Ecosystems." Keynote Address at IEEE Systems, Man, and Cybernetics Conference (SMC 2007) Workshop, "eNetworks Cyberengineering: Infrastructures for Cyber-Physical Ecosystems." October 7-10, 2007, Montreal, Canada.

4.D Other Writings (Technical Reports and Testimony)

Ilic, Marija. "The Future Power Grid." Cover story in *Power Quality*, June 2002, pp. 14-17, 21.

Ilic, Marija D. "Model-based Protocols for the Changing Electric Power Industry." MIT, Cambridge, n.d.

Ilic-Spong, M., "A New Approach to Load Flow Using Complex Power-Complex Voltage Graph," DSc Thesis, Washington University, St. Louis, MO, 1980.

Ilic, M., "Multicriteria Optimization of Energy Control in Complex Systems as Applied to Power Systems," MEE Thesis, University of Belgrade, Yugoslavia, January 1977.

Medanic, J., B. Avramovic, M. Ilic, and V. Todorovic, "Methodology for the Security Assessment of the Serbian Electric Power System," Technical Report, Institute M. Pupin, Belgrade, Yugoslavia, 1976.

Zaborszky, J., K.V. Prasad, K.W. Whang, and M. Ilic-Spong, "Towards a Comprehensive Analysis and Operating Practice of the Large Compound HV-AC-DC System," Progress Report on Contract DOE-78-D-01-3090 to the U.S. Department of Energy, Washington, DC, 1980.

Zaborszky, J., K.V. Prasad, K.W. Whang, M. Ilic-Spong, G. Huang, and L.J. Chiang, "Towards a Comprehensive Analysis and Operating Practice of the Large Compound HV-AC-DC Systems," DOE Final Report, SSM Report # 8203A, 1982.

"Development of a Decoupling Methodology for On-Line Detection of System Instabilities," Volumes I and II, US DOE Final Report, 1987.

Helm, M.S., M. Ilic-Spong, M.A. Pai, and P.W. Sauer, "Eighth Annual Report of the Power Affiliates Program at the University of Illinois," PAP-TR-87-1, May 1987.

Taylor, D.G., M.J. Woolley, and M. Ilic, "Linearizing and Implementation of a Decoupling Transformation for the Reluctance Motor," (videotape), Division of Instructional Media and Technology, University of Illinois, Urbana, IL, May 1988.

Stobart, W.J. and M. Ilic, "Development of a Smart Algorithm for Voltage, Monitoring and Control," MIT Laboratory for Electromagnetic and Electronic Systems TR-90-002, 1990.

Ilic, M., "Research Agenda for Power Systems Monitoring and Control: Voltage Related Problems," MIT Laboratory for Electromagnetic and Electronic Systems TR90-004, October 1990.

Ilic, M., "Voltage-Related Power Systems Monitoring and Control: A Revised and Expanded Research Agenda," MIT Laboratory for Electromagnetic and Electronic Systems, WP91-001, March 1991.

Ilic, M., J.R. Lacalle-Melero, and W.J. Stobart, "Final Report on the MIT Approach to Voltage Monitoring and Corrective Actions for the New England Power Pool," MIT Laboratory for Electromagnetic and Electronic Systems TR91-002, May 1991.

N. D. Reppen and M. Ilic, "Incipient System Voltage Collapse Analysis," in Final Report by Power Technologies, Inc., Schenectady, NY, June 1991.

Ilic, M. Lacalle-Melero, J., Nishimura, F., Schenler, W., "Short-Term Economic Energy Management in a Deregulated Environment: An Engineering Based Approach," MIT Laboratory for Electromagnetic and Electronic Systems WP91-003, June 1991.

Ilic, M., J.R. Lacalle-Melero, and W.J. Stobart, "Steady State Voltage Monitoring and Control," MIT Laboratory for Electromagnetic and Electronic Systems TR92-001, March 1992.

Ilic, M., "Fundamental Engineering Problems and Opportunities in Operating Power Transmission Grids of the Future," MIT Laboratory for Electromagnetic and Electronic Systems WP93-001, January 1993.

Chapman, J.W and M. Ilic, "Large-Signal Generator Control and its Impact on Improved Power Transfer Flexibility," Final Report ESEERCO Project EP90-45, September 1993.

Graves, F.C., Ilic, M., ``Pricing of Electricity Network Services to Preserve Network Security and Quality of Frequency Under Transmission Access'', Response to the Federal Energy Regulatory Commission, Docket No. RM93-19-000, November 1993.

Ilic, M. and F. Graves, "Optimal Use of Ancillary Generation Under Open Access and Its Possible Implementation," MIT Laboratory for Electromagnetic and Electronic Systems, TR 95-006, August 1995.

Ilic, M., F. Graves, L. Fink and A. DiCaprio, "A Framework for Operations in Competitive Open Access Environment," MIT Energy Laboratory EL 95-003, October 1995.

Ilic, M., Graves, F.C., ``Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Services by Public Utilities'', Reply Comments to the Federal Energy Regulatory Commission, Docket No. RM95-7-001, October, 1995.

Ilic, M., Zobian, A. A., ``An Alternative Structure for preserving System Reliability and Facilitating Competitive Power Market'', Response to the Federal Energy regulatory Commission, Docket No. RM94-20-000, March 1995.

Ilic, M.D. and A. Zobian, "Steady State Voltage Monitoring and Control," EPRI TR-105393, Project 2473-70, November 1995.

Ilic, M., "Appendix B: Hierarchical Power Systems Control: Its Value in a Changing Industry," in Interconnected Operations Services: Defining System Requirements Under Open Access, Tampa Electric Company, March 1996.

Lecinq, B. and M. Ilic, "Peak-load Pricing for Transmission in a Deregulated Industry," MIT Energy Laboratory, EL 96-005, June 1996.

Ilic, M., "Benefits of Deregulation. But Who Pays for Reliability?," MIT Energy Laboratory EL-96 004, June 1996.

Ilic, M., S.X. Liu, B.D. Eidson, C.N. Yu, E.H. Allen and P. Skantze, "A Unified Approach to Real-Time Control, Accounting, and Supporting Policies for Effective Energy Management Under Competition," Final Report MIT Energy Laboratory EL 97-001, January 1997.

Castillo, J. and M. Ilic, "Assessment of Methods for Forecasting Electricity Demand," MIT Laboratory for Electromagnetic and Electronic Systems, WP 97-002, March 1997.

Ilic, M., E.H. Allen and Z. Younes, "Providing for Transmission in Times of Scarcity: An ISO Cannot Do It All," MIT Laboratory for Electromagnetic and Electronic Systems WP 97-003, May 1997.

Younes, Z. and M. Ilic, "Physical and Financial Rights for Imperfect Electric Power Markets," MIT Laboratory for Electromagnetic and Electronic Systems WP 97-005, May 1997.

Ilic, M. and C.N. Yu, "Algorithms and a User's Manual for Simulations of Automatic Generation Control (AGC) of Large Electric Power Systems," MIT Laboratory for Electromagnetic and Electronic Systems TR 97-003, May 1997.

"A Competitive Electricity Industry," EMF Report 15, Stanford, CA, April 1998 (co-authored).

Cardell, J., M. Ilic and R. Tabors, "Integrating Small Scale Distributed Generation into a Deregulated Market: Control Strategies and Price Feedback," Final Report to US Department of Energy, MIT TR 98-001, April 1998.

Yoon, Y.T., Arce, J.R., Collison, K., Ilic, M.D., ``Implementation of Cluster-based Congestion Management Systems'', MIT E-Lab WP EL 00-001, May 2000.

Ilic, M., Fumagalli, E., Saxena, A., Arce, J.R., ``Reliability for Distributed Electric Power Systems of the Future: Interplay of Technology, Economics and Regulations'', MIT E-Lab Technical Report, EL 00-004, August 2000.

Skantze, P., Gubina, A., Ilic, M., ``Bid-based Stochastic Model for Electricity Prices: The Impact of Fundamental Drivers on Market Dynamics'', MIT E-Lab report MIT-EL 00-004, November 2000.

Describing Reliability of the Electric Power Industry During Its Transition into a Competitive Market that Includes Regulated Transmission Operations and other Service Relationships, Interim Report to the Energy Information Administration, DOE, July 2000.

Saxena, A., Ilic, M., ``A Value-Based Approach to Voltage/Reactive Power Control'', MIT E-Lab WP EL 00-004, May 2000.

Ilic, M., Collison, K., Yoon, Y., Development of Recommendations for the Collection of Information Yoon, Y.T., Collison, K., Arce, J.R., Ilic, M.D., ``Congestion Management Systems Methods: Comparison on 118 Bus System'', MIT E-Lab WP EL 00-005, July 2000.

Yoon, Y.T., Colisson, K., Arce, J.R., Ilic, M.D., ``Practical Implementation of a Congestion Cluster Pricing Method'', MIT E-Lab WP EL 00-006, August 2000.

Ilic, M., ``Comments to the North American Electric Reliability Council'' concerning the FERC Inquiry on Electric Reliability Issues for the Interstate Electric Transmission System, 2001.

Ilic, M., Yoon, Y., RTO Filing, Regarding Order 2000 Compliance Filing—Docket No..RT01—000, January 2001.

Ilic, M., Skantze, P., Visudhiphan, P., ``Refrain (Pianissimo): California here we come?'', Focus Section, Boston Globe , January 2001 .

Ilic, M., Skantze, P., Vusdhiphan, P., ``California Electricity Troubles: Is Massachusetts Next?'', MIT Tech Talk, January 2001.

Fumagalli, E., Black, E., Ilic, M., Vogelsang, I., ``A Reliability Insurance Scheme for the Electricity Distribution Grid'', MIT E-lab MIT EL 01-001 WP, January 2001.

Ilic, M., Collison, K., Yoon, Y., Development of Recommendations for the Collection of Information Describing Reliability of the Electric Power Industry During Its Transition into a Competitive Market that Includes Regulated Transmission Operations and other Service Relationships, Final Report to the Energy Information Administration, DOE, July 2001.

Ilic, M. "Toward a Multi-Layered Architecture of Large-Scale Complex Systems: The Problem of Reliable and Efficient Man-Made Infrastructures." ESD Student Seminars on Critical Infrastructures Presentation, MIT, Cambridge, MA, October 4, 2004. Also, ESD Symposium, March 2004.

Ilic, M. "NETSS System for Solving Seams Problems: Illustrations on the NPCC Reduced Model." Invited NSF Presentation, October 29, 2004.

Ilic, M. "Locational and Temporal Aspects of Electricity Markets." ESD Student Seminar Presentation, MIT, Cambridge, MA, November 22, 2004.

Ilic, M. "Reactive Power Provision and Pricing in the Changing Electric Power Industry." NETSS Presentation at FERC, December 10, 2004.

Larson, R., Marks, D.H., Munther, D., Ilic, M. The 3 R's of Critical Energy Networks Reliability, Robustness and Resiliency. A White Paper Submitted to the MIT Energy Research Council, October 30, 2005.

4.E Sections or Chapters in Edited Monographs or Similar Volumes

Ilic, M., "Reactive Power: Fundamentals, Problems and Solutions," in IEEE Special Publications, G. Sheble, ed., San Francisco, CA, 1987 (second edition New York, NY, 1988).

Ilic, M., "Modern Approaches to Modeling and Control of Electric Power Systems," in Control and Dynamic Systems 41, Academic Press Inc., 1-78, 1991.

Ilic, M., L. Hyman, E. Allen, R. Cordero and C.N. Yu, "Interconnected System Operations and Expansion in a Changing Industry: Coordination vs. Competition," in The Virtual Utility: Accounting, Technology & Competitive Aspects of the Emerging Industry, Shimon Awerbuch and Alistair Preston (eds.), Kluwer Academic Publishers, 307-355, series on Topics in Regulatory Economics and Policy, 1997. %

Ilic, M. and F.D. Galiana, "Power Systems Operation: Old vs. New," in Electric Power Systems Restructuring: Engineering and Economics, Kluwer Academic Publishers, 15-107, 1998.

Galiana, F.D. and M.D. Ilic, "Framework and Methods for the Analysis of Bilateral Transactions," in Electric Power Systems Restructuring: Engineering and Economics, Kluwer Academic Publishers, 108-128, 1998.

Coxe, R. and M. Ilic, "System Planning Under Competition," in Electric Power Systems Restructuring: Engineering and Economics, Kluwer Academic Publishers, 285-335, 1998.

Younes, Z. and M. Ilic, "Transmission Networks and Market Power," in Electric Power Systems Restructuring: Engineering and Economics, Kluwer Academic Publishers, 337-386, 1998.

Cardell, J. and M. Ilic, "The Control and Operation of Distributed Generation in a Competitive Electric Market," in Electric Power Systems Restructuring: Engineering and Economics, Kluwer Academic Publishers, 453-518, 1998.

Awerbuch, S., Hyman, L.S., Vesey A., (Eds.), Unlocking the Benefits of Restructuring: A Blue Print for Transmission, Public Utilities Reports Inc. Vienna, VA, 1999.

Ilic, M., "Power-System Control", Chapter 12, Handbook for Power System Calculations, McGraw Hill, 2000.

Yoon, Y., Ilic, M., "Transmission Expansion in the New Environment", Chapter 5 in Power System Restructuring and Deregulation: Trading, Performance and Information Technology (Editor I. Lai), John Wiley & Sons, 2000.

Ilic, Marija D. and John Zaborszky. "Electric Power Systems Engineering." Vol. 2 of *Encyclopedia of Energy*. Editor-in-Chief Cutler J. Cleveland. Boston: Elsevier Academic Press, 2004. Pp. 267-287.

Ilic, Marija, "Automating Operation of Large Electric Power Systems Over Broad ranges of Supply/Demand and Equipment Status", Chapter 6 in Chow, J., Wu, W., Momoh, J., (Editors), *Applied Mathematics for Restructured Electric Power Systems*, Kluwer Academic Publishers, ISBN 0-387-23470-5, pp. 105-137.

Ilic, Marija, Invited Guest Editor for the Proceedings of the IEEE November 2005 Special Issue, entitled "Power Technology and Policy – Forty Years After the 1965 Blackout."

Ilic, M., "Automating Operation of Large Electric Power Systems Over Broad Ranges of Supply / Demand and Equipment Status," Chapter 6 in *Applied Mathematics for Restructured Electric Power Systems: Optimization, Control, and Computational Intelligence*, Eds. J. Chow, F. Wu, and J. Momoh, Kluwer Academic Publishers, August 2005 (to appear).

Ilic, M., "Technical System Innovation through Distributed Control: The Case of Electricity." Chapter (invited) in *The Governance of Network Industries: Redefining Roles and Responsibilities*, Eds. R. Kunneke and J. Groenewegen. Edward Elgar Publishers, 2007 (to appear) .

4.F Published Abstracts, Discussions, Reviews

Ilic, M., "Technologies and Management Structures to Support Reliable and Efficient Operation over a Broad Range of Generation and Demand, November 15, 2003, First Energy, Inc. www site (also New Electricity Transmission Software (NETSS), Inc. WP03-01, December 2003).

Ilic, M., "Engineering Needs for Enhancing Performance of the U.S. Electric Power Grid: Regulated Industry, Performance Measures and R&D Needs, January 25, 2004, First Energy, Inc. www site (also NETSS WP04-01, January 2004).

Ilic, M., "Regulatory/Market and Engineering Needs for Enhancing Performance of the U.S. Electric Power Grid: Alternative Architectures and Methods for Their Implementation, January 26, 2004 First Energy, Inc. www site (also NETSS WP04-02, January 2004).

Participated in review activity for IEEE Transactions, Encyclopedia of Energy, and NSF proposals (panels), during 2003.

Ilic, Marija. "The Intellectual Challenge Behind Bundling Diverse Energy Systems of the Future." January 2006, MIT Engineering Systems Division (ESD) Newsletter (invited).

4.G Patents

M.D. Ilic and J.W. Chapman, "Decentralized Excitation Control for an Electrical Power Utility System," U.S. patent number 5 483 147, 1996.

M.D. Ilic and S.X. Liu, "Direct Control of Inter-area Dynamics in Large Power Systems Using Flexible AC Transmission Systems (FACTS) Technology," U.S. patent 5 517 422, 1996.

M.D. Ilic and Y. Yoon, "Inter-regional Transmission Organization: Design, Functions and Tariffs", October 14, 2000 MIT, Case No. 9062.

5. Grants and Contracts Awarded to Date

Sponsoring agencies: National Science Foundation(NSF) (including First PYI for Electric Power System), Asea Brown Boveri (ABB), Inc., Siemens, Inc., Korea Electric Power Corporation, US Department of Energy(DOE), DOE/Energy Information Administration(EIA), Southern California Gas Corporation, Electric Power Research Institute(EPRI), EPRI/ US Department of Defence(DOD), Electricite De France, Constellation Power Systems, TransEnergie USA, Empire State Electric Research Corporation(ESEERCO), New England Electric System(NEES), National Grid(NG)USA, Merrill Lynch, UK Government (through Cambridge University/M.I.T. Initiative).

Details on the level of funding and subjects available upon request.

NSF: Educating 21st Century Power Engineers – CMU lead with Smith College and MIT (01/2004-12/2005)

NSF EPNES: Dynamic Transmission Provision and Pricing for Electric Power Systems–CMU lead with Boston University, Univ. of PA (Wharton School), and Univ. of Oklahoma (09/2003-08/2004)

SRC: Analysis and Control of IC Power Grids–M. Ilic with Larry Pileggi (04/2003-03/2004)

Hong Kong Research Grants Council: Analysis of Competitive Electricity Market With Evolutionary Computation–Prof. Kit Po Wong (2003-2006)

NSF-ITR: Secure and Robust IT Architectures to Improve Survivability of the Power Grid–Benoit Morel (2003-2005)

NSF EPNES: Dynamic Transmission Provision and Pricing for Electric Power Systems, M. Ilic (2003-2006)

SRC: Analysis and Control of IC Power Grids, M. Ilic with Larry Pileggi (2003-2006)

DoE: Bundling Energy Systems of the Future, M. Ilic with Lester Lave and Jose' Moura (2005-2007)

NSF-ITR – (CNS) – (ecs): Toward a Multi-Layered Architecture for Reliable and Secure Large-Scale Networks, M. Ilic with Bruce Krogh, Lester Lave, Jay Apt, and Jose' Moura (2004-2009)

“Engineering Electricity Services of the Future,” M. Ilic with Co-PIs: Ernie Moniz (MIT), Richard Larson (MIT), Joel Moses (MIT), Rob Ambrosio (IBM).

6. Professional Activities

6.A Seminars

May 1981, "Complex Power-Complex Voltage for Electric Power Networks," Drexel University, Philadelphia, PA.

January 1982, "A New Approach to Load Flow Studies," Lehigh University, Bethlehem, PA.

January 1982, "Theorems for Steady State Electric Power Networks," Cornell University, Ithaca, NY.

March 1982, "Potential of Using the S-E Graph for Power Systems Monitoring," Pennsylvania Power and Light Co., Allentown, PA.

April 1982, "Recursive Formulae for Load Flow Computations," Cornell University, Ithaca, NY.

October 1982, "Theoretical Foundations of the Se-E Graph and Its Relations to the I-E Graph," Washington University, St. Louis, MO.

Spring 1983, "S-E Graph Based Adjoint Networks for Power Systems Studies," McMaster University, Hamilton, Canada.

April 1984, "Conditions for the Localized Response in Decoupled Voltage-Var Networks," University of Illinois, Urbana, IL.

May 1984, "Existence and Uniqueness of a Solution to the Reactive Power Problem," McGill University, Montreal, Canada.

Summer 1984, "Floquet Theory Based Control of Switched Reluctance Motors," General Electric, Corporate R&D, Schenectady, NY.

Summer 1984, "Data Management for Reactive Power/Voltage Control," Central Illinois Light Co., Peoria, IL.

Spring 1986, "Feedback Linearizing Control for Switched Reluctance Motors," General Electric, Corporate R&D, Schenectady, NY.

Fall 1986, "Automatic Voltage Control and Its Parallelism with the Automatic Generation Control," Leeds and Northrup Co., North Wales, PA.

Fall 1986, "Real Time Reactive Power Control," Pennsylvania-Jersey-Maryland Interconnection, Philadelphia, PA.

Spring 1987, "Reactive Power/Voltage Modeling and Control," MIT, Cambridge, MA.

May 1987, "Where Does the Power Industry Go From Here?" Power Industry Computation Conference, Montreal, Canada.

Summer 1987, "Reactive Power/Voltage Modeling and Control," University of California, Berkeley, CA.

July 1987, "Reactive Power: Basics, Problems and Solutions," IEEE Power Engineering Society, San Francisco, CA.

Fall 1987, "Numerical Algorithms for Large Scale Electric Power Systems," MIT, Cambridge, MA.

January 1988, "Open Control Theoretical Issues in the Large Scale Electric Power Systems," Rensselaer Polytechnic Institute, Troy, NY.

February 1988, "Reactive Power: Basics, Problems and Solutions," IEEE Power Engineering Society, New York, NY.

April 1988, "Numerical Algorithms for Simulating Very Large Dynamical Systems," Rensselaer Polytechnic Institute, Troy, NY.

May 1988, "Open Research Questions in Voltage Control Design," Grainger Lecture Series, Urbana, IL.

June 1988, "Coordinated Voltage Control on Large Interconnected Systems," Vattenfall, Stockholm, Sweden.

June 1988, "Pilot Point Based Voltage Control-Comparison of the Current Practice on the French System and the EPRI Supported Research in the U.S. for Automating Secondary Voltage Control," Electricite de France, Paris, France. %

September 1988, "New Algorithms for Voltage Monitoring and Control," Power Technologies, Inc., Schenectady, NY.

November 1988, "Electric Power Systems Control and Operation: Present Practice and Future Directions," MIT, Cambridge, MA.

November 1988, "Review of the Available Monitoring and Control Tools for Voltage Problems," New England Electric System, Westboro, MA.

January 1989, "Were There Any Hidden Energy Reserves in Massachusetts Last Summer?" MIT, Cambridge, MA.

April 1989, "Monitoring and Control in Electric Power Systems," Water and Electricity Department, Abu Dhabi, United Arab Emirates.

April 1989, "Review of the Development on Voltage Monitoring and Control," New England Electric System, Westboro, MA.

September 1989, "Operational Issues in Power Systems in 2000 and Beyond," NSF Workshop, Atlanta, GA.

September 1989, "New Approaches to Voltage/Reactive Power Control in Electric Power Systems," University of Tennessee, Knoxville, TN.

October 1989, "Research Needs in Power Systems Dynamics and Control: Academic Perspective," MIT Workshop on Research Needs in Electric Power Systems, Cambridge, MA.

October 1989, "Voltage Problems: The New Operating Mode in Power Systems," MIT Workshop on Research Needs in Electric Power Systems, Cambridge, MA.

December 1989, "Advanced Controls in Electric Power Systems," New York Power Pool, Albany, NY.

December 1989, "New Controls for Electric Power Systems," General Electric Industry and Utility Sales, Schenectady, NY.

January 1990, "Potential Scenarios for Supercomputer Applications in Operating Electric Power Systems," Empire State Electric Energy Research Co., Albany, NY.

February 1990, "An Overview of the State-of-the-Art in Voltage Dynamics," North American Reliability Council, Atlanta, GA.

March 1990, "Needs for Future Research in Voltage Dynamics," American Electric Power Co., Columbus, OH.

April 1990, "Voltage Problem as a New Operating Mode in Electric Power Systems," North Carolina State University, Department of Electrical and Computer Engineering, Raleigh, NC.

November 1990, "Voltage Monitoring and Control of Electric Power Systems," MIT Workshop II on Power Systems, Cambridge, MA.

December 1990, "Global Research Agenda for Electric Power Systems at MIT," MIT Planning Workshop, Cambridge, MA.

June 1991, "Voltage Problems and Their Controls," Tokyo Electric Power Co., Tokyo, Japan.

June 1991, "MIT Research in the Area of Power Systems Monitoring and Controls," Kansai Electric Power Co., Osaka, Japan.

June 1991, "MIT Method for Steady State Voltage Monitoring and Corrective Actions," Taiwan Power Co., Taiwan; also Korean Electric Power Co., Seoul, Korea, June 1991.

June 1991, "Voltage Dynamics and Control," Seoul National University, Department of Electrical Engineering, Seoul, Korea.

November 1991, "Power Systems Monitoring and Control Research at MIT," MIT Workshop III, Cambridge, MA.

October 1992, "The Future of Energy Transmission in the US Electric Power: Switching to Semiconductors," MIT EECS Colloquium, Cambridge, MA.

November 1992, "The Impact of Advanced Technologies on Real Time Control of Power Systems," US Department of Energy Workshop, Denver, CO.

January 1993, "Planning and Operating Problems in the Newly Evolving Environment of the Electric Power Systems," MIT Planning Workshop, Cambridge, MA.

October 1994, "Optimal Strategies for Changing Power Industry," MIT/EUP Workshop on Transmission Distribution Operational Strategies for a Restructured Electric Industry, Cambridge, MA.

October 1994, "A Brief Survey of Present System-Wide Functions and Their Role in the Distributed Energy Market-- Limits to Distribution," MIT/EUP Workshop on Transmission Distribution Operational Strategies for a Restructured Electric Industry, Cambridge, MA.

November 1994, "A Unified Approach to Real-Time Controls, Accounting and Supporting Policies for Effective Energy Management under Competition," New York Power Pool, Albany, NY.

December 1994, "Fundamental Problems and Opportunities in Operating Transmission Grid of the Future," University of Maryland Institute for Systems Research, College Park, MD.

December 1994, "Systems Engineering Design," University of Maryland, College Park, MD.

December 1994, "Alternate Operational Strategies for Electric Utility Restructuring," Connecticut Energy Advisory Board, Hartford, CT.

February 1995, "A Unified Approach to Dynamic Pricing Under Open Access," University of California, Berkeley, CA.

June 1995, "Power Pooling for Transmission and Ancillary Services: Balancing Efficiency and Comparability," Beaver Creek, CO.

July 1995, "A Unified Approach to Real-Time Controls, Accounting and Supporting Policies for Effective Energy Management under Competition," IEEE Task Force on Controls in the 21st Century," Portland, OR.

July 1995, "AGC in Competitive Environment," Workshop on Resource Scheduling and Generation Control, Hilton Head, NC.

September 1995, "Trends in Activity-Based Costing," MIT Workshop on Corporate Planning and Technology Management for a Competitive Electric Industry Environment, Cambridge, MA.

September 1995, "R&D Perspective on Pricing Methodologies," ABB Power T D Company, Inc., Transmission Technology Institute, Raleigh, NC.

September 1995, "Role of an ISO in Supporting a Competitive Power Market Based on Bilateral Scheduling" (with Frank Graves), Workshop on Restructuring Electric Transmission, Beaver Creek, CO.

October 1995, "A Unified Approach to Real-Time Controls and Accounting for Effective Energy Management under Competition," MIT, Cambridge, MA.

October 1995, "A Framework for Operations in Competitive Open Access Environment," MIT, Cambridge, MA.

October 1995, "New Models for Representing Technical and Economic Processes of Energy Management Under Competition," INFORMS'95, New Orleans, LA.

January 1996, "A New Framework for Operations Planning under Open Access," Electricite de France, Paris, France.

January 1996, "Open Problems in Using Flexible AC Transmission System (FACTS) Technologies" Electricite de France, Paris, France.

January 1996, "Engineering vs. Market-based Pricing for the Interconnected Operating Services," Electric Utility Planning meeting, Cambridge, MA.

February 1996, "A Possible Framework for Operations Planning in a Changing Industry: Coordination vs. Competition," American Electric Power Co., Columbus, OH.

June 1996, "Deregulation in the Northeast of the United States," Energy Modeling Forum Stanford University Working Group 15, Washington, DC.

July 1996, "Flexible Planning for Power Transmission in a Competitive Industry," MIT, Cambridge, MA.

August 1996, "Transmission Capacity in Electric Power Networks," 12th Power Systems Computation Conference, Dresden, Germany.

August 1996, "Peak Load Pricing for Transmission," Edison Electric Institute, Washington, DC.

September 1996, "Getting it Right the First Time: Value of Transmission and High Technology," Transmission Pricing Conference, Denver, CO.

October 1996, "A Framework for Operations in Competitive Electric Power Industry," Cornell University, Ithaca, NY.

November 1996, "A Unified Approach to Real-Time Operations, Planning and Accounting Under Open Access," US Department of Energy, Washington, DC.

December 1996, "Hierarchical Control Structure and Voltage Control in FACTS Controlled Electric Power Systems," The Korean Electric Power Research Institute, Taejong, South Korea.

March 1997, "Power Systems Under Competition," University of Connecticut, Storrs, CT.

April 1997, "The Impact of Transmission Constraints on the Electricity Market," IEEE Mid-Hudson Section, Poughkeepsie, NY.

April 1997, "Transmission Provision at Times of Scarcity: An ISO Cannot Do it All," Center for Energy and Environmental Policy Research, Cambridge, MA.

June 1997, "Long-Term Investment Issues," International Business Communications, Washington, DC.

June 1997, "Public Comments to the Task Force on Electric System Reliability," Secretary of Energy Advisory Board, Washington, DC.

July 1997, "Vital Issues Panel," Sandia National Laboratory, Washington, DC.

October 1997, "Transmission Pricing in New England," Stanford Energy Modeling Forum, Stanford, CA.

April 1998, "Control Markets for Deregulated Electric Power Industry," Federal Energy Regulatory Commission, Washington, DC.

May 1998, "Transmission Constraints and Market Power," Stanford Energy Modeling Forum, Washington DC.

October 1998, "Measuring Power System Performance in the New Industry", PostISO Implementation Conference, Sacramento, California.

November 1998, "Electric Power Industry Restructuring: Engineering and Economics", IEEE Distinguished Lecture, Orlando IEEE Chapter.

January 1999, "Critical Factors for Forming a Transmission Company", Alliance Transmission Owners, Washington DC, American Electric Power Headquarters.

January 1999, "Power Markets: Lessons for Internet", Internet Telephony Consortium Workshop, MIT, Cambridge.

February 1999, "On the objectives of transmission pricing", IEEE Panel, Winter Power Meeting, New York.

July 1999, "Measures for Comparing Performance of Regulated and Deregulated Electric Power Industries", Mini Symposium "Modeling and Computational Challenges in Deregulated Electricity Markets", 4th Conference on Industrial and Applied Mathematics, Edinburgh, Scotland.

March 1999, "Some Obstacles to Moving Forward with Successful Deregulation of the Electric Power Industry", Federal Energy Regulatory Commission, Washington, D.C.

April 1999, "Research Challenges in Electric Power Systems", NSF Workshop on Innovations in Power Engineering Education and Research, National Science Foundation, Washington, DC.

June 1999, "Electric Power Restructuring in the United States", IEEE Distinguished Lecture, French Chapter, Paris, France.

July 1999, "On-line Voltage Regulation in New England", IEEE Panel, Edmonton, Alberta, Canada.

October 1999, "Strategic Directions in R&D to meet Future Demand; Setting R&D Priorities", Ontario Electricity Technology Forum: The New Reality, Toronto, Canada.

December 1999, "On Underlying Principles for Designing Standards in the New Electric Power Industry", NIST (National Institute of Standards Technology) Sponsored Workshop on "Challenges for Measurements and Standards in a Deregulated Electric Power Industry", Arlington, VA.

March 2000, The Role of IT in Competitive Electric Power Systems, MIT, Mechanical Engineering Department Series.

April 2000, "The Role of IT in the Electric Power Industry", Chicago, IL.

August 2000, "Integrating Electricity Markets for Wide Area Open Access", Workshop on Markets for Electricity, Economics and Technology (MEET): A Flow-based Paradigms for Systems Operation and Market Coordination", Stanford University, Palo Alto, CA.

September 2000, "Incentives for Transmission Investments: A Proposal for a New England Regional Transmission Organization", Orlando, FL, IEEE Distinguished Lecture.

November 2000, A Strategic Systems for Electric Energy Technologies, NSF/DOE/EPRI Sponsored Workshop on Future Research Directions for Complex Interactive Electric Networks, Washington, D.C.

December 2000, "The Role of Information Technology in the Electric Power Industry", PowerCon2000, Perth, Australia (Plenary talk).

April 2001, Electric Power Networks and Data Networks: How Common are the Underlying Problems? EPRI/DOD Meeting, George Washington University, Washington, D.C.

June 2001, Change of Paradigms in Complexity and Interdependencies of Infrastructures, OSTP/NSF Meeting, White House, Washington, D.C.

June 2001, Decision Tools for Electric Transmission Service and Pricing: A Dynamic Programming Approach, EPRI/DOD Interactive Complex Networks Workshop, Washington, D.C.

September 2001, A Possible Transmission Market Design and Performance-Based Tariffs for Prudent Transmission Investments, Electric Power Market Performance Conference, Denver, CO.

September 2001, Valuing Transmission Service: Product Definition, Market Design and Software, Electricity Transmission Meeting, IIR, Arlington, VA.

October 2001, Protocols and Software for the Changing Electric Power Industry: Tradeoffs between T&D and DG, Alstom/MIT Meeting, Cambridge, MA.

November 2001, The Electricity Provision in the Changing Industry, WPI ECE Department Talk Series, Worcester, MA.

November 2001, T&D Technologies—Systems Integration Opportunities and Challenges, Carnegie Mellon Workshop on Electricity Security and Survivability, Pittsburgh, PA.

November 2001, Model-Based Protocols for the Changing Electric Power Industry, EPP Department Talk, Carnegie Mellon University, Pittsburgh, PA.

December 2001, Model-Based Protocols for the Changing Electric Power Industry, MIT LIDS Series Talk, Cambridge, MA.

January 2002, ``A Proposal for an Inter-Regional Transmission Organization (IRTO)'', IEEE Panel, New York City, NY.

February 2002, Panel on Electricity Restructuring, AAAS Meeting, Boston, MA.

Reliability in the Changing Industry, APSCOM'03 Tutorial (1 entire day), Hong Kong, November 12, 2003.

Preventing Blackouts in the Changing Electric Power Industry, ECE/CMU seminar

Making Electric Power Systems both secure and Efficient: Protocols for Dynamic Energy Control (PDEC), CMU/EPP Seminar, Feb 3, 2003

A Multi-Layered Approach to Transmission Provision and Pricing in the Electric Power Networks, Institute for Mathematics and Applications (IMA), Univ. of Minnesota, Workshop on Control and Pricing in Communication and Power Networks, March 8-13, 2004 (invited).

Potential Implications of Making the Electric Power Network Secure/Reliable on Energy Use, MIT Energy Industry Symposium, Cambridge, MA, December 3, 03 (invited).

A Systematic IT Architecture for Efficient Electric Power Industry Under Restructuring: The Missing Mechanism, Its Implications and Possible Design, Keynote Presentation APSCOM'03, Hong Kong, November 12, 2003

An Agent-based Approach to Modeling Electricity Spot Markets, IMA Workshop, MN, November 3-6, 2003 (invited-with Dr Poonsaeng Visudhiphan)

Large-Scale Dynamic Network Systems Revisited: The Case of Electric Power Systems, NSF Workshop on Applied Math, Arlington VA, November 2/3, 03 (invited)

Dynamic Transmission Provision and Pricing for Electric Power Systems, EPNES NSF Workshop, Orlando, FL, October 24, 2003.

Institutional and technological architectures for distributed power systems of the future, U.S. Department of Energy, and National Renewable Energy Laboratory, Next Generation Distribution System Visioning Workshop, October 9, 2003 Chicago, IL (invited)

Risk Management, Liquidity and the Value of Information Technology, Northeast Power Conference, Boston, MA, June 25, 2003.

Transformation of Electricity Markets: Value based transmission provision under open access , EPRI Research Advisory Committee (RAC) Meeting, EPP/CMU, April 24, 2003.

Research on Complex Electric Power Networks, GAO presentation, CMU/ECE Meeting, April 12, 2003.

Transmission Reliability Revisited: Provision and Pricing in the Evolving Electric Power Markets, EPRI/EMF Meeting, Palo Alto, CA, Jan 16,03.

Ilic, M., Reconciling Hierarchical Control and Open Access in the Changing Electric Power Industry, Proc of the IEEE International Conf on Networking, Sensing and Control, AZ March 2005.

Preventing Future Blackouts by Means of Enhanced Control: From Complexity to Order, PSERC (Tele-Seminar), September 2005

Preventing Future Blackouts by Means of Enhanced Control: From Complexity to Order, University of Liege, Belgium, November 2005

Trading Commodities Delivered via Complex Physical Networks, Energy Forum, London, UK., November 2005

Toward Value-based Energy Provision under Uncertainties, Cambridge Energy Research Associates, December 2005

Marija Ilic, "Investment, Finance, and Safeguarding Public Interests in the Liberalized Electric Sector." Delft University, Netherlands. May 26, 2005.

Marija Ilic, Critically Missing Derivatives in Today's Electricity Markets: A Possible Means of Relating Physical and Financial Signals, European Energy Forum, London, England, November 16, 2005.

Ilic, M., Software Needs and its Valuation in the Electric Power Industry, <http://www.ece.cmu.edu/electricityconference>, Jan. 2006

Ilic, Marija. "Software Needs and its Valuation in the Electric Power Industry." Carnegie Mellon University. Second Carnegie Mellon Conference in Electric Power Systems: Monitoring, Sensing, Software and Its Valuation for the Changing Electric Power Industry, January 11-12, 2006.

Ilic, Marija. "Technology Needs and Valuation in T&D." Invited talk at Florida Central University for Department of Energy (DoE) Panel, February 2006.

Marija Ilic, "Software Needs and Its Valuation in the Electric Power Industry." University of Novi Sad, Serbia. May 2006.

Marija Ilic, "Coherence of Technology and Regulation: The Case of Electricity." University of Paris Workshop on the NGI Project. May 29, 2006.

Ilic, Marija. "Reconciling Hierarchical Control and Open Access in the Changing Electric Power Industry." Large-Scale Dynamical Systems Workshop, Niagara-on-the-Lake, Ontario, June 18-20, 2006.

Ilic, M. "Engineering Electricity Services of the Future: From Hierarchical to Open Access Systems," IBM Talk, Yorktown, NY, October 26, 2006.

Marija Ilic, Short-term and Long-Term Risks in Electricity Markets, Nice, France, November 7, 2006.

Ilic, M. "Engineering Electricity Services of the Future: From Hierarchical to Open Access Systems," MIT Invited Lecture, IAP Courses on Sustainable Energy, Course numbers 1.818J/2.65J/3.564J/10.391J/11.371J/22.811J/ESD166J, Jan 22, 2007.
<http://stellar.mit.edu/S/course/10/ia07/10.391J/index.html>.

Ilic, Marija. "Long-term Problems with, and Solutions for, Future Energy Systems," Northeastern University, Boston, MA, Feb 16, 2007

Unlocking Transmission Grid, Georgia Tech University Workshop, Feb 27, 2007

6.B Government Committees, Civic Appointments, Board Memberships

IEEE-USA Technical Policy Committee, Member May 2000-present

National Science Foundation, Program Director (50% time) Sept. 1999 March . 2001

National Science Foundation Expert for Power Systems Program 1999

Mass House Committee on Science and Technology Panel on Y2K utility readiness 1999

Organizer, NSF/DOE/EPRI Sponsored Workshop on "Future Research Directions for Complex Interactive Electric Networks, November 16-17, 2000, Washington, D.C.

Co-Initiator, OSTP/NSF Workshop on Long-Term R&D Needs for Critical Infrastructures and their Inter-dependencies, White House, Washington, D.C., June 14-15, 2001.

Organizing Committee NSF Workshop "Responding to the Unexpected", February 27-March 1, 2002, New York City.

Technical Advisory Committee, California Energy Commission, on Distributed Energy Resources Project, 2003

Carnegie Institute of Technology Faculty Chair for 2006-2007

Participant in NSF Workshop on Monitoring and Controlling the Nation's Critical Infrastructures, Arlington, VA, November 2006

Carnegie Institute of Technology Faculty Awards Committee, 2006

Chair of the Energy Panel, in charge of reviewing 33 proposals in the energy area for FCT, Portugal (invited), 2006

ECE Graduate Studies Committee (2006-2007)

Carnegie Institute of Technology College Council. (2006-2007)

EPP Department Graduate Committee (2006-2007)

Testify at the Pennsylvania House Republican Policy Committee hearing held at Carnegie Mellon regarding energy issues for development of energy policy (September 5, 2007)

ECE Graduate Studies Committee (2007-2008)

ECE Undergraduate Studies Committee (2008-2009)
Judge posters for IEEE PES GM 08 (Pittsburgh, July 2008)

6.C Membership and Activities in Honorary Fraternities, Professional Societies

Vice Chair, IEEE Central Illinois Section, 1986-1987
Control Systems Society Vice-Chair, Energy Technical Committee, 1986-1988
Chair, Energy Technical Committee, 1988-1991
Circuits and Systems Society
Power Engineering Society
Working Group on Flexible AC Transmission Systems
Systems Control Subcommittee
Working Group on Open Transmission Access
Working Group on Controls in the 21st Century
Invited member of the Energy Modeling Forum WG on "A Competitive Electricity Industry,"
Stanford University.
Associate member of the MIT's CEEPR Center for Energy and Environmental Policy Research.
IEEE Fellow
Member of IEEE PES Working Group on Test Systems for Economic Analysis (2006)
IEEE Power Engineering Society General Meeting 2006
Board Member, IEEE Proceedings

6.D Editorial Roles on Publications, Major Activities in Professional Meetings

Technical Program Committee, IEEE Conference on Decision Control 1986
Associate Editor for Large Scale Systems Networks, 1987 1989
IEEE Transactions on Circuits and Systems
Technical Program Committee and Vice Chair, 1988
IEEE American Control Conference
Publications Chair, IEEE Conference on Decision Control 1988
Guest Editor, IEEE Control Systems Magazine, June 1988
Special Issue on Energy Systems
Program Chair, 1989
IEEE American Control Conference
Associate Editor, International Journal on Electric Power Energy Systems 1989 present
Program Committee, Workshop on Variable Structure June 1991
Control of Power Conversions Systems
Co-Chair, IEEE China Power Conference Sept. 1991
Technical Program Committee, 1992
IEEE Conference on Decision and Control on Circuits and Systems
Workshop Organizer, International Symposium May 1992
U.S. Representative, CIGRE (Conference Internationale des Grands Reseaux Electriques a Haute
Tension): 1992 1996
Task Force on Voltage Problems

Guest Editor, Special Issue on FACTS,
March 1995

International Journal on Energy Systems

Associate Editor, IEEE Transactions, Circuits and Systems 1993 1995

Program Committee, IEEE Conference on Control Applications 1995

Program Committee, Power Systems Computer Conference 1996

Program Committee, IASTED Conference on High Technology in the Power Industry 1997

Program Committee, International Conference on Power System
Automation and Control 1997

Stanford Energy Modeling Forum Working Group 15 1995 present
Organizing Committee, 1996

Annual North American Power Symposium

Guest Editor, Special Issue on Power Systems, Sept. 1998

Chairman, IEEE WG on Voltage Control

Guest Editor 1998 present

Journal on Discrete Event Dynamic Systems November 1999

IEEE Panel on Value and Cost of Reactive Power Control,
Organizer and Chair August 1999

IEEE Distinguished Lecturer for Power Systems 1997—present

Encyclopedia of Energy, Academic Press, Inc. – Associate Editor, 2002-2003

Int. Journal of Electrical Power & Energy Systems – Associate Editor, 2003

IEEE-USA Technical Committee on Energy Policy, 2003

Electric Utility Deregulation, Restructuring and Power Technologies, Hong Kong, April 5-8, 2004
– International Advisory Board

IEEE Proceedings Special Issue Guest Editor 2005

IEEE Associate Editor for IEEE Transactions on Circuits and Systems, (2006-2007)

Editorial Board, IEEE Proceedings

Associate editor, International Journal on Electric Energy Systems

NSF Planning Meeting on Cyber-Physical Systems Workshop, Oct 16-17, University of Texas,
Austin, TX (invited)

Carnegie Mellon Site Director for PSERC, 2007-08

Carnegie Mellon PSERC Executive Committee – 15 days effort per year, 2007-08

6.E Awards, Prizes, Honors

City of Belgrade, Yugoslavia award for special achievements in scholastic work, 1974

Dr. Dusan Mitrovic Award for best paper in the Automation Group, 1978

XXI Yugoslavian Conference on Electronics, Telecommunications and Automation

Dr. V. Bedjanic Award for outstanding results published in the Master of Electrical Engineering
Degree Thesis, Yugoslavia, 1978

Presidential Young Investigator Award, 1984-1989

Best paper award (Control Area) IEEE Power Electronics Systems Conference, Toulouse, France,
1985

Xerox Faculty Award, College of Engineering, University of Illinois, 1986
University Scholar Award, University of Illinois 1987
Best student paper award (advisor/co-author), 34th IEEE Conference on Decision and Control,
New Orleans, LA, 1995
Best PhD Thesis Advisor Award, MIT Technology Policy Program 1998
IEEE Distinguished Lecturer for Power Systems 1997—present
IEEE Fellow 1999
Who's Who of American Women, 2004-2005
Delft Univeristy, Senior Research Fellow, 2006
Institute Fellow in the NETL Institute for Advanced Energy Solutions (NETL-IAES), 2008